IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Mark Hoffman et al.

Serial No.: 09/696,762

Filed: October 25, 2000

For: Investment Advice Systems and Methods

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Group Art Unit: 3628

Examiner: Nga B. Nguyen

APPEAL BRIEF

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Brief on Appeal to the Board

Docket No.: 24309-501   PATENT

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Nga B. Nguyen

Brief on Appeal

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Further to the Notice of Appeal filed November 1, 2005, Appellants/Applicants file the present Appeal Brief pursuant to 37 CFR 41.37.

Applicants enclose a $250.00 check to cover the fee for filing a brief in support of an appeal pursuant to 37 CFR 41.20(b)(2). Applicants also request a three (3) month extension of time per 37 CFR 1.136(a) and enclose a $510.00 check to cover the fee for the three (3) month extension of time per 1.17(a)(4). With this three (3) month extension of time, the present Appeal Brief is due April 3, 2006 (April 1st being a Saturday). Applicants believe that no additional fees are due with this filing. However, if any additional fees are required and/or if any further extensions of time are necessary to prevent abandonment of this application then such extensions of time are hereby petitioned for under 37 CFR 1.136(a) and the Commissioner is hereby authorized to

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may be due, or credit any overpayment, to Deposit Account No. 50-0311, Attorney Ref. No. 24309-501, **Customer Number 30623.**

Preliminary Statement

The Patent Office has failed to appreciate the revolutionary significance of the invention as a whole and ignored specific recitations of the claims in an attempt to reject all of the claimed subject matter (33 currently pending claims, including 7 independent claims) using a single document ("Wallman"). Indeed, the only rejection of 24 of the claims is an anticipation rejection over Wallman and the only rejection of the other 9 pending claims is an obviousness rejection based solely on Wallman. In other words, the Patent Office acknowledges that Wallman, the only applied document, does not contain recitations associated with 9 of the pending claims

Almost all of the substance of the current rejection was first put forth by the Patent Office in a first Office Action issued August 12, 2004. In response, in a January 31, 2005 Response, the Applicants' provided, among other things, a detailed explanation as to why Wallman does not support the anticipation and obviousness rejections as well as declaration evidence of non-obviousness. As a specific example of Applicants' explanation of why Wallman does not support the asserted obviousness rejection, the Patent Office improperly used the present application as a motivation to modify Wallman in an attempt to achieve the claimed invention of claim 57.

Indeed, the Applicants requested that the Examiner specify where in Wallman the Examiner considers there to be a motivation to modify the subject matter of Wallman to achieve the claimed invention. The Examiner's only response was to provide an almost verbatim copy of his prior rejection. Applicants submit that the Examiner did not respond to Applicants request because Wallman does not contain such a motivation.

Moreover, the Patent Office has completely ignored evidence of non-obviousness (i.e., evidence submitted on March 22, 2005 via a 37 CFR 1.132 declaration, a copy of which is attached as Appendix I) contrary to a requirement provided in Patent Office's own Manual of Patent Examining Procedure (MPEP 716.01). In view of the facts and law discussed in the arguments section of this brief, Applicants request that the Patent Office reverse the remaining rejections (i.e., an anticipation rejection of claims 11, 15-18,

46, 49, 51-54, 56, 58, 60, 65, 66, 69, 71, 71, and 74-77 and an obviousness rejection of claims 57, 59, 61-64, 67, 68, and 70) and issue this case.

Real Party in Interest

The real party in interest is Upstream Technologies LLC, the assignee of the above-captioned application.

Related Appeals and Interferences

This appeal is not related to any other appeals or interferences.

Status of Claims

Claims 11, 15-18, 46, 49, 51-54 and 56-77, including independent claims 11, 46, 51, 57, 58, 66, and 74 are the subject of this appeal.

Claims 11, 15-18, 46, 49, 51-54, 56, 58, 60, 65, 66, 69, 71, 71, and 74-77 stand rejected under 35 USC 102(e) as anticipated by U.S. Patent No. 6,601,044 issued to Wallman (hereinafter "Wallman").

Claims 57, 59, 61-64, 67, 68, and 70 stand rejected under 35 USC 103(a) as being unpatentable over Wallman.

No other claims are pending. Applicants previously cancelled without prejudice claims 1-10, 12-14, 19-45, 50, and 55.

Status of Amendments

The Applicants have not filed any amendments subsequent to the final office action issued in this case on August 5, 2005. A clean copy of the claims is attached as Appendix II.

Summary of Claimed Subject Matter

With reference to FIG. 12, the invention relates to systems and methods for providing investment or trading advice in light of current holdings in a portfolio. For example, the advice can include recommendation 252 regarding which securities to buy or sell and how much of the securities to buy or sell in light of current holdings in a portfolio.

The specification, between page 34, line 14 and page 43, line 24 and with reference to FIG. 5, describes *generating an order list or trade list (e.g., a buy/sell list) by computing combined ranks* for relevant securities, the *combined ranks being based at least in part on risk rankings and on security forecast rankings*, i.e., a forecast return ranking. The invention derives security forecast ranking from information provided by security analyst(s). See claims 11, 51, 57, 58, and 66.

In one embodiment, the combined ranking is a weighted sum of a risk ranking, a security forecast ranking/return ranking and a tax ranking. See claims 57, 62, 67 and 68. In one embodiment, the return ranking is based on an aggregation of normalized securities rankings from a plurality of security analysts. See claim 72. Incorporating internally consistent forecast return rankings for a large universe of stocks allows a user of the present invention to take into account the views of selected advisors, either individually or in aggregate, regarding future performance of specified securities.

The computation of the combined ranks can include *determining marginal risk for discrete-sized, i.e., quantum, changes* in relevant holdings (page 41, lines 9-24). In one embodiment *determining a marginal contribution to risk includes: adding a specified weighting to the portfolio; determining a revised contribution to factor risk and residual risk; subtracting original values; and dividing by a change in weight*. See claims 51, 57, 61, 62, 68, and 69. Because trades actually occur in discrete sizes, a portfolio manager or investor, using methods and systems of the claimed invention, receives more accurate feedback, e.g., on the impact on a portfolio of a proposed trade.

Embodiments of the invention allow a user to interactively propose potential trades and examine the impact of the trades on portfolio metrics such as a risk metric and a return metric. Similarly, embodiments of the invention provide recommendations for trades and illustrate the impact of selected recommended trades on portfolio metrics such as a risk metric and a return metric. These metrics are shown in the Analysis section 256 of the user interface shown in FIG. 12. See claims 47, 51, 54, and 56.

Yet other embodiments of the invention provide methods for managing a plurality of portfolios. With reference to FIG. 16, the methods include: displaying a rebalance

accounts display for providing information about a plurality of accounts; allowing a user to select one or more accounts for rebalancing; allowing a user to select a trading template to apply to the selected accounts; and applying the trading template to the selected accounts.

FIGS. 2A, 3A, 5, and 12 and the text associated with these figures relate to the aspects of the invention described above.

Grounds of Rejection to be Reviewed on Appeal

Issue 1—Whether claims 11, 15-18, 46, 49, 51-54, 56, 58, 60, 65, 66, 69, 71, 71, and 74-77 are anticipated by Wallman under 35 USC 102(e).

Issue 2—Whether claims 57, 59, 61-64, 67, 68, and 70 are patentable under 35 USC 103(a) over Wallman.

Grouping of Claims

The Applicants group the claims as follows:
Group I – claims 11, 15-18, 65, and 66
Group II – claims 46, 49
Group III – claims 51-53
Group IV – claim 54
Group V – claim 56
Group VI – claim 57
Group VII – claims 58
Group VIII – claim 59
Group IX – claim 60
Group X – claim 61
Group XI – claim 62
Group XII – claim 63
Group XIII – claim 64
Group XIV - claims 67-68
Group XV – claim 69
Group XVI – claim 70
Group XVII – claim 71
Group XVIII – claim 72
Group XVIX – claim 74
Group XX – claim 75
Group XXI– claim 76

Group XXII – claim 77

Each Group is separately patentable and thus no two groups fall together. The reasons why each Group is separately patentable are presented in the arguments below.

The Argument

Issue 1— Whether claims 11, 15-18, 46, 49, 51-54, 56, 58, 60, 65, 66, 69, 71, 72, and 74-77 are anticipated by Wallman under 35 USC 102(e).

Claims 11, 15-18, 46, 49, 51-54, 56, 58, 60, 65, 66, 69, 71, and 72 stand rejected under 35 USC 102(e) as unpatentable over U.S. Patent No. 6,601,044 issued to Wallman (hereinafter "Wallman"). Reconsideration and withdrawal of this anticipation rejection is deemed in order and is requested.

Amended Independent Claim 11

As defined by amended claim 11, the invention provides a computer-implemented method for providing investment advice to a client over a computer network. The method includes: providing a database maintaining portfolio information for a plurality of securities portfolios; and providing a server computer operably coupled to the database and accessible via client computers to a plurality of clients.

The server computer includes: an asset allocator operative to receive one of a spend cash request, a raise cash request, a rebalance request, and a re-rank request; a ranker component in communication with the asset allocator; a security analyst component in communication with the asset allocator; and a portfolio component in communication with the asset allocator. The method of amended claim 11 further includes managing a securities portfolio identified by the database for a client by: receiving portfolio information; using the ranker component to pass a get benchmark request to the portfolio component; *normalizing security forecasts from at least one advisor and translating the normalized forecasts into security forecast rankings;* using the ranker component to pass a get security rankings request to a security analyst component; determining risk rankings for relevant securities using portfolio minus

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benchmark weights; _**determining combined rankings for proposed trades of relevant**_ _**securities based at least in part on risk rankings and on security forecast rankings;**_ and _**generating an order list based on the combined rankings**_.

Contrary to the assertion in the August 5, 2005 Office Action (the "Office Action") that claim 11 is anticipated by the Wallman patent, amended claim 11 contains recitations that are completely absent from the Wallman patent. For example, the Wallman patent does not disclose the following amended claim 11 recitations:

1) _normalizing security forecasts from at least one advisor and translating the normalized forecasts into security forecast rankings; (hereinafter the "normalizing security forecasts" recitation)_

2) _determining combined rankings for proposed trades of relevant securities based at least in part on risk rankings and on security forecast rankings; (hereinafter the "determining combined rankings" recitation) and_

3) _generating an order list based on the combined rankings (hereinafter the "generating an order list" recitation)._

THE "NORMALIZING SECURITY FORECASTS" RECITATION

Taking the above-quoted recitations in turn, the "normalizing security forecasts" recitation is completely absent from the Wallman patent. Wallman does not teach or even discuss normalizing security forecasts from at least one advisor or translating the normalized forecasts into rankings. The bottom of page 4 to the top of page 5 of the August 5, 2005 Office Action appears to provide the most relevant comments regarding the above-quoted recitation. Pages 4 and 5 of the Office Action state in relevant part:

> normalizing security forecasts from at least one advisor and translating the normalized forecasts into security forecast rankings (column 30, lines 32-60; the system provides a recommended portfolio from the Down [sic] Jones Industrial Index, or from a selected analyst, or from a magazine or other publication or from a selected organization or through collaborative techniques);

Thus, the relevant portions of pages 4 and 5 of the Office Action merely quote the "normalizing security forecasts" recitation from claim 11, refer to column 30, lines 32-60 of the Wallman patent, and appear to paraphrase the disclosure of the cited portion of

Wallman as teaching that "the system provides a recommended portfolio from the Down [sic] Jones Industrial Index, or from a selected analyst, or from a magazine or other publication or from a selected organization or through collaborative techniques." The cited section of Wallman begins (in col. 30 on line 32) by referring to FIG. 4B. Contrary to the assertion in the Office Action, the cited section of Wallman, as illustrated by FIG. 4B, does not teach the "normalizing security forecasts" recitation of amended claim 11.

Indeed, providing a recommended portfolio, e.g., from a selected analyst or from a magazine (such as the magazines (75) shown in FIG. 4B) does not teach the "normalizing security forecasts" recitation (e.g., as taught between page 37, line 14 and page 38, line 12 of the present application) because, among other reasons, Wallman appears merely to disclose that an analyst may state that her ideal portfolio would have a set of fifty stocks with the certain proportions (See Wallman, col. 30, lines 47-49). Listing a set of stocks in an ideal portfolio and the proportions of those stocks has nothing to do with the "normalizing security forecasts" recitation for a number of reasons including that there is no mention of normalization and that security forecasts include forecasts for securities included in, **and excluded from**, a portfolio (See, e.g., 2nd sentence of 2nd paragraph of the present application's detailed description and Fig. 12 and associated text).

To be specific, the invention of amended claim 11 normalizes forecasts from at least one advisor, and translates the normalized forecasts into security rankings. As taught between page 37, line 14 and page 38, line 12 of the present application, different advisors may use different scales for their forecasts. In addition or alternatively, a single advisor may use different scales at different times or in different contexts. Since one embodiment of the present invention compares and possibly combines forecasts from different advisors or compares forecasts from a single advisor, this embodiment normalizes the forecasts. Thus, one embodiment of the system normalizes each set of forecasts such that they have an average value of zero and a standard deviation of one. The system 80 (see FIG. 1) determines a minimum (-2) and maximum (+2) standardized value. The system 80 then translates the normalized forecast into a ranking centered around the average of the worst and best rank. In one embodiment, the system defines these forecast rankings as

Forecast ranking=(worst rank+best rank)/2+Normalized forecast*(best rank-worst rank)

/(max std value-min std value)

Normalizing security forecasts and translating the normalized forecasts into rankings advantageously allows an investor to systematically take advisor/analyst forecasts into account when considering a particular transaction or set of transactions (as described further below with regard to the "determining combined rankings" recitation). Thus, Wallman does not teach the "normalizing security forecasts" recitation as claimed in amended claim 11.

THE "DETERMINING COMBINED RANKINGS" RECITATION

With respect to the second recitation of amended claim 11, the "determining combined rankings" recitation, page 5 of the August 5, 2005 Office Action merely states the following as support for the position that Wallman anticipates this recitation:

> determining combined rankings **for proposed trades** of relevant securities based at least in part on risk rankings and on security forecast rankings; (figure 13, items 53a, 55a-55h, 54a, 56a-56h, and column 37, line 58-column 38, line 26; risk ranking and differential return ranking; column 16, lines 37-55; column 30, lines 32-60; column 40, lines 40-50; security forecast ranking) [Emphasis added].

Thus, page 5 of the Office Action quotes the "determining combined rankings" recitation (underlined above) from claim 11, refers to figure 13, items 53a, 55a-55h, 54a, 56a-56h, and column 37, line 58-column 38, line 26 of the Wallman patent, and appears to paraphrase the disclosure of the cited portion of Wallman as teaching risk ranking and differential return ranking. Note that Wallman states that Screen B (of Fig. 13) shows the calculation of the risk and expected differential return levels for the stocks that one used to calculate **the portfolio** risk levels and the expected differential return **of the portfolio.** Column 37, line 58-column 38, line 26 of the Wallman patent states in relevant part (with reference to FIG. 13):

> *Screen B also shows the calculation of the risk (beta) 55b-55h and expected differential return levels 56b-56h for the stocks that are used to calculate the portfolio risk levels 53a and the expected differential returns 54a of the portfolio.* It would also be made clear that a principal benefit of the computer-based system of the present invention and the concept of using a portfolio for investing instead of individual stocks is the notion that the riskiness in any one stock held in a portfolio may be different from the

riskiness of that stock held by itself... Consequently, *investors will be cautioned to focus on portfolio risk/returns, not individual stock risk/return*. Again, then, *there is a great advantage to investors as described above from being able to adjust their whole portfolio characteristics just through moving a pointer* (51a, 52a in Screen A up or down...), *as opposed to having to consider and understand the effects on the portfolio from modifying individual stock positions*. Thus less than expert investors, for example, can have their portfolio adjusted automatically by having the system re-weight or add cash, or leverage, when the investor adjusts the pointers, dials or colors. ... [Emphasis added.]

Thus, with reference to FIG. 13, Wallman does appear to discuss risk . 55b-55h and expected differential return levels 56b-56h for the stocks that are used to calculate the portfolio risk levels 53a and the expected differential returns 54a of the portfolio. *However, no mention is made as to how Wallman determines the expected differential return levels. FIG 5 appears to indicate that differential return calculations are based on returns for the past 12 months*. Thus, differential return levels are not forecast rankings because differential return levels appear to be based solely on returns for an historical period, e.g., the past 12 months.

Moreover, the cited section, i.e., column 37, line 58-column 38, line 26, in particular, or *Wallman* in general, *does not teach or even discuss determining combined rankings for proposed trades as recited in claim 11*. In fact, Wallman does not appear to use the terms "rank" or "ranking" at all. Indeed, page 16 of the August 5, 2005 Office Action appears to acknowledge that at least one type of combined rankings is not disclosed in Wallman. *Page 16 of the August 5, 2005 Office Action states that "Wallman does not disclose determine [sic] combined rankings of relevant securities as a weighted sum of risk rankings, security forecast rankings and tax rankings* [Emphasis added]." Fig. 5 of the present application illustrates one embodiment of the determination (step 5 in FIG. 5) of combined rankings according to the invention.

Security Forecast Ranking

As noted above, the August 5, 2005 Office Action continues on page 5 by referring to column 16, lines 37-55; column 30, lines 32-60; and column 40, lines 40-50 of the Wallman patent and appears to paraphrase the disclosure of the cited portions of

the Wallman patent as teaching **security forecast ranking**. A brief discussion of each of the cited sections now follows. Column 16, lines 37-55 of the Wallman patent states:

> Once an affinity group is identified, the system can gather statistics for the investor noting, again hypothetically, that as a group, patent attorneys invest in high technology stocks. The system could then list the ten most frequently traded high technology stocks in which patent attorneys are interested. Similarly, *the system can gather statistics for the investor on what level of risk and return generally characterizes the current portfolio investing by economists, and then create a portfolio that matches those portfolio characteristics*.

> If an investor has a particular interest in a more specific affinity group, the investor might query the system of the present invention to provide all of the securities in which patent attorneys who specialize in mechanical engineering are investing. Again general groupings of securities could be presented or the top ten securities being traded by mechanical patent attorneys can be listed, or the portfolio characteristics can be selected and matched. [Emphasis added.]

The cited section quoted above appears to discuss a system that can gather statistics for an investor on what level of risk and return generally characterizes current portfolio investing by an affinity group, and then can create a portfolio that matches those portfolio characteristics. *The August 5, 2005 Office Action does not point to a teaching in Wallman of a combined ranking of any kind. This cited discussion is wholly unrelated to the claim 11 recitation of determining combined rankings for proposed trades* of **relevant securities** *based* at least in part *on risk rankings and on security forecast rankings*. As claimed, *the security forecast rankings are translated from normalized security forecasts and the security forecasts are received from advisor(s).*

> Column 30, lines 32-60 of the Wallman patent states in relevant part:

> Referring to FIG. 4B, alternatively, or additionally, the computer-based system of the present invention also *allows the investor to be presented with suggested portfolios created through other means—such as a recommended portfolio that reflects a specified strategy, such as* the ten under performing stocks from the Dow Jones Industrial Index, or *from a selected analyst*, ... As shown in FIG. 4B, the investor can select from a category of portfolios 71-76, under each of which the investor can then select a particular type of portfolio within that category. For example, the investor can select an average portfolio for people with the same number of children as the investor by selecting "Similar Demographics" 74 and then "Number of Children" 77.

As further examples, a noted analyst may state that her ideal portfolio would be the following fifty stocks in the following proportions, or a magazine may give its picks for the "ideal" portfolio, ... In any of these types of cases, Screen 5 would make available the list of companies and the suggested allocations (or if no allocation is provided by the entity creating the list, then in accordance with appropriate diversification requirements, risk and other preferences of the investor, as provided previously). [Emphasis added.]

The cited section quoted above appears to discuss a system that can present an investor with a recommended portfolio that reflects a specified strategy such as from a selected analyst. *Presenting a portfolio recommended by a selected analyst does not teach the claim 11 recitation of determining combined rankings for proposed trades of relevant securities based at least in part on risk rankings and on security forecast rankings because, among other reasons, merely presenting a portfolio does not make use of the analyst's predictions/forecasts regarding individual securities, whether the securities are included in, or excluded from, the analyst's recommended portfolio.* Again, as claimed, the security forecast rankings are translated from normalized security forecasts received from at least one advisor.

Column 40, lines 40-50 of the Wallman patent states:

As noted, *there will also be pre-packaged or suggested portfolios*. The present invention will keep track of those portfolios. For example, the Washingtonian picks can be displayed for an investor who can then be given the option to purchase a basket of securities that are the same as the expert's picks that have been published. The Dow 500 and the Fortune 500 top stocks may also be tracked by the present invention with the opportunity given to invest in the same top stocks as listed in the index or the magazine. Again, *performance data on the stocks and portfolios that are potential candidates for investment can be generated to further inform the investor*. [Emphasis added.]

The cited section quoted above appears to note that there will be suggested portfolios and that performance data on the stocks and portfolios that are potential candidates for investment can be generated to further inform the investor. *It is unclear what performance data can be generated. Perhaps,* as suggested by FIG. 5 of Wallman, the generated performance data is *return data generated by a stock over the past 12*

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months. In any event, ***there is no discussion of*** the claim 11 recitation of determining ***combined rankings for proposed trades*** of relevant securities ***based*** at least in part on risk rankings and ***on*** security ***forecast rankings***. As claimed, the security forecast rankings are translated from normalized security forecasts ***received from at least one advisor***.

Thus, the sections (i.e., column 37, line 58-column 38, line 26; column 16, lines 37-55; column 30, lines 32-60; column 40, lines 40-50) cited on page 5 of the Office Action do not disclose the amended claim 11 recitation of determining combined rankings for proposed trades of relevant securities based at least in part on risk rankings and on security forecast rankings.

THE "GENERATING AN ORDER LIST" RECITATION

With respect to the third recitation, the "generating an order list" recitation, page 5 of the August 5, 2005 Office Action merely states the following as providing support for the position that Wallman anticipates this recitation: "generating an order list based on the combined ranking (figure 13)."

Thus, the Office Action quotes the "generating an order list" recitation and merely refers to FIG. 13 of Wallman. FIG. 13 of Wallman appears to depict certain screens that may be presented to an investor. Screen A appears to show one form of a general presentation of the risk 55a and expected differential in return 56a of a chosen portfolio 57a of six stocks. Screen B appears to show a detail of Screen A with the stocks specified and their relative contributions to the portfolio and their respective risks 55b and differential returns 56b. Thus, screen B appears to be the more relevant of the two screens and screen B appears limited to a showing of which stocks make up a portfolio, their relative contributions to the portfolio and their respective risks and differential returns. What screen B does not do is allow comparison of the holdings such as which security is contributing the least/most to the portfolio, and it cannot support a "what-if" capability should the user wish to alter the composition of the portfolio.

In contrast, the invention as claimed in amended claim 11 generates an order list, e.g., a buy/sell list, based on the recited combined rankings. For example, with reference to FIGS. 12 and 13 of the present application, the portfolio recommendation section 252 and the general information section (FIG. 13) of the illustrated graphical user interfaces

include order lists, e.g., buy and sell recommendations, that a system according to the present invention generates based on the recited combined rankings. Generating such an order list advantageously allows an investor to receive recommendations for a small number of specific trades. The recommendations based on combined rankings take into account advisor forecast(s) associated with a proposed trade and the proposed trade's impact on the overall risk rating of the portfolio.

In sum, the Examiner does not and cannot cite sections of Wallman that teach the "normalizing security forecasts" recitation, the "determining combined rankings" recitation, and the "generating an order list" recitation. In the Applicants January 31, 2005 Amendment B and Response (a copy of which is attached as Appendix III), the Applicants respectfully requested, if the Examiner repeated this rejection (originally stated in an August 12, 2004 first Office Action), that the Examiner cite the specific section(s) and the specific language within the cited section(s) that the Examiner considers to teach the missing recitations. In response, the Examiner repeated the prior rejection almost verbatim (using the amended claim language and including a citation to column 30, lines 32-60 as anticipating the newly added "normalizing forecast rankings" recitation).

In other words, the Examiner did not respond to Applicants' explanation of the fact that the "combined rankings" recitation and the "generating an order list" recitation are absent from Wallman (these arguments were made in Applicants' January 31, 2005 Amendment B and Response). The Applicants submit that the Examiner did not respond to the Applicants' request for specificity because Wallman does not in fact teach or suggest the recitations noted above.

Thus, for the reasons cited above, amended claim 11 is not anticipated by Wallman. In addition, amended claim 11 is not obvious in view of Wallman because, among other reasons, the cited section of Wallman teaches away from considering individual proposed trades as would be presented in the order list that results from amended claim 11. Wallman states the following in column 38, between lines 1 and 14:

> Consequently, investors will be cautioned to focus on portfolio risk/returns, not individual stock risk/return. *Again, then, there is a great advantage to investors* as described above *from being able to adjust their whole portfolio characteristics just through moving a pointer* (51a, 52a in Screen

A up or down (or the hand of a dial, or the color code on a litmus-type strip, etc.)), *as opposed to having to consider and understand the effects on the portfolio from modifying individual stock positions.* Thus *less than expert investors,* for example, *can have their portfolio adjusted automatically by having the system re-weight or add cash, or leverage,* when the investor adjusts the pointers, dials or colors. [Emphasis added.]

Thus, not only does Wallman not teach the "normalizing security forecasts", "determining combined rankings", and "generating an order list" recitations, but it also teaches away from generating an order list of proposed transactions. Indeed, Wallman specifically teaches away from helping an investor to consider and understand the effects on a portfolio from modifying individual stock positions. In contrast, the claimed invention generates an order list. See, e.g., the analysis display 256 in FIG. 12 of the present application. Furthermore, amended claim 11 is not obvious in view of Wallman for the reasons provided in the Paul Samuelson Declaration attached as Appendix I to this Appeal Brief and filed concurrently with the January 31, 2005 Amendment B and Response. Consequently, amended claim 11 is patentably distinct from the Wallman patent. We will return again to this "teaches away" argument below.

Amended Independent Claim 46

As defined by amended claim 46, the invention provides a computer data signal embodied in a carrier wave. The computer data signal is transferred between an investment advice server and a user's client computer. The computer data signal includes: portfolio information associated with a user's investment portfolio; benchmark information associated with the user's investment portfolio; risk ranking information; stock rating information; and instructions for a client's browser. The instructions are for the client's browser to display: a trade station display including a mechanism operative to receive at least one trade request; a holdings display operative to depict a relationship between the portfolio information and the benchmark information; *an analysis display including a current risk ranking and stock rating and a projected risk ranking and stock rating, wherein the analysis display allows a client to compare a current portfolio's average to a projected portfolio's average after a proposed trade*; and instructions for the

client's browser to transmit a trade request to an investment advice server upon submission of a trade request by a user.

Contrary to the assertion on pages 3 and 6 of the Office Action that claim 46 is anticipated by Wallman, amended claim 46 contains a recitation that is completely absent from Wallman. With reference to FIG. 12 of the present application, Wallman does not disclose an analysis display 256 including a current risk ranking and stock rating and a projected risk ranking and stock rating, wherein the analysis display allows a client to compare a current portfolio's average to a projected portfolio's average after a proposed trade (the "analysis display" recitation).

Page 7 of the Office Action merely states the following with respect to the "analysis display" recitation:

> an analysis display including a current and a projected risk ranking, and stock rating (figures 5, 13, items 53a, 55a-55h, 54a, 56a-56h, and column 37, line 58-column 38, line 26; risk ranking and differential return ranking; column 16, lines 37-55; column 30, lines 32-60; column 40, lines 40-50; stock rating);

Thus, page 7 of the Office Action quotes the "analysis display" recitation, cites 1) figures 5, 13, items 53a, 55a-55h, 54a, 56a-56h, column 37: line 58-column 38: line 26; and 2) column 16: lines 37-55, column 30: lines 32-60, column 40: lines 40-50, and appears to paraphrase these cites as teaching 1) risk ranking and differential return ranking and 2) stock rating, respectively. All the citations listed above other than the items in figures 5 and 13 are quoted in relevant part and discussed previously in this appeal brief. These citations were discussed in the context of the "determining combined rankings" recitation of amended claim 11.

Although FIGS. 5 and 13 do appear to show a current risk metric (see FIG. 13, items 55a-55h) and a current differential return metric (see FIG. 13, items 56a-56h), *FIGS. 5 and 13 in particular do not show, and Wallman in general does not show, an analysis display including a projected risk ranking and a projected stock rating wherein the analysis display allows a client to compare a current portfolio's average to a projected portfolio's average after a proposed trade as recited in claim 46.* With reference to FIG. 12 and page 48, line 1-page 51, line 8 of the present application, one embodiment of an analysis display 256 includes a current risk ranking and a current stock

rating and a projected risk rating and a projected stock rating. Thus, using the analysis display 256 one can compare a current portfolio's current risk ranking and stock rating to a projected portfolio's risk ranking and stock rating that would exist after the execution of a proposed trade. In other words, as stated in the present application on page 50 between lines 11 and 14, by selecting and deselecting alternatives and suggestions and then by refreshing the analysis display 256, the client portfolio is subjected to as many "what if scenarios" prior to trade execution as the user deems beneficial.

Thus, for the reasons cited above, amended claim 46 is not anticipated by Wallman. In addition, amended claim 46 is not obvious in view of Wallman because, among other reasons and as noted above, Wallman teaches away from considering individual proposed trades as taught and claimed in the present application, i.e., the "analysis display" recitation of amended claim 46. Indeed, as noted above, Wallman (e.g., Col. 38, lines 1 to 14 of Wallman) specifically teaches away from considering and understanding the effects on a portfolio from modifying individual stock positions. Furthermore, amended claim 46 is not obvious in view of Wallman for the reasons provided in the Declaration filed concurrently with the Applicants' January 31, 2005 Amendment B and Response. Consequently, amended claim 46 is patentably distinct from the Wallman patent.

Amended Independent Claim 51

As defined by amended claim 51, the invention provides a system for providing investment advice. The system includes: a database identifying a plurality of securities portfolios and maintaining portfolio information associated with the security portfolios; and a server computer operably coupled to the database and accessible via client computers to a plurality of clients.

The server computer includes a trade advisor component operative to receive, from the database, portfolio information for a securities portfolio of a client. *The trade advisor component proposes securities transactions based on a combined ranking of a return ranking and a risk ranking for each tradable security available to the client. The return ranking is based on an aggregation of normalized securities rankings from one or more analysts for each tradable security. The risk ranking is based on a normalized marginal contribution to risk of each security to the portfolio, where the*

normalized marginal contribution to risk is scaled by a factor reflecting a client's risk aversion.

Contrary to the assertion on pages 3 and 8 of the Office Action that amended claim 51 is anticipated by Wallman, amended claim 51 contains recitations that are completely absent from Wallman. For example, the Wallman does not teach or suggest the following amended claim 51 recitations:

1) The trade advisor component proposes securities transactions based on a combined ranking of a return ranking and a risk ranking for each tradable security available to the client (hereinafter "proposes securities transactions based on a combined ranking" recitation);

2) The return ranking is based on an aggregation of normalized securities rankings from one or more analysts for each tradable security (hereinafter the "aggregation of normalized securities rankings from one or more analysts" recitation); and

3) The risk ranking is based on a normalized marginal contribution to risk of each security to the portfolio, where the normalized marginal contribution to risk is scaled by a factor reflecting a client's risk aversion (hereinafter the "risk ranking based on normalized marginal contribution to risk" recitation).

THE "PROPOSES SECURITIES TRANSACTIONS BASED ON A COMBINED RANKING" RECITATION

Taking the above-quoted recitations in turn, the "proposes securities transactions based on a combined ranking" recitation is completely absent from Wallman. Similar to the discussion above with respect to the "combined ranking" recitation of amended claim 11 (see page 16), Wallman does not teach a trade advisor that proposes securities transactions based on a combined ranking of a return ranking and a risk ranking for each tradable security available to the client. Page 8 of the Office Action merely states the following with respect to this recitation:

the trade advisor component proposing securities transactions based on a combined ranking of a return ranking and a risk ranking for each tradable security available to the client (column 34, lines 15-50)

Thus, page 8 of the Office Action merely quotes the "proposes securities transactions based on a combined ranking" recitation and cites column 34, lines 15-50 of Wallman. Column 34, lines 15-50 of Wallman states in relevant part:

Screen 5 (34) is the operational screen for the services selected by the investor. If, for example, the investor wishes to evaluate the portfolio for tax effects, this Screen 5 (34) permits him to do so. The investor would specify in the tax effects communications menu the relevant parameters selecting from those available--such as stocks with losses, stocks with gains, long-term versus short-term gain or loss, combinations of the parameters, or all current tax positions. *The system would then display for the investor the stock positions that satisfy the investor's parameters*, with dollar amounts listed. Because of the way the system works--allowing for ... frequent adjustments to the portfolio securities themselves, it is possible that an investor would have gains and losses in the same stock ... In that instance, the system would display the stock as having both such gains and losses. *The investor would then be presented with a series of options as to what he would like to do next.* These options are smart options and context sensitive so that, for example, *an investor is able to sell individual securities simply by highlighting those securities in the list and clicking a command something like "sell at next portfolio adjustment." The transaction is then added to the portfolio as an adjustment* and executed at the next transaction window. If the investor wished to sell immediately, the investor would highlight the securities and click "sell immediately"...[Emphasis added.]

Thus, the above-quoted section of Wallman appears to discuss an operational screen for services selected by an investor. The above-quoted section describes, as an example of one use of the operational screen, an evaluation of a portfolio for tax effects. Wallman suggests that one can select parameters and then the system of *Wallman presumably would display stock positions that satisfy investor specified parameters*. Wallman continues to describe that an investor would then be able to select individual securities from the list for sale.

In contrast, *the claimed invention* recites a *trade advisor component that proposes securities transactions based on a combined ranking of a return ranking and a risk ranking for each tradable security* available to the client. With reference to FIG. 5 of the present application, the determination of the combined ranking is illustrated as step 5. With reference to FIG. 12 of the present application, the proposed transactions are shown in the portfolio recommendations display 252. With reference to FIG. 13 of the

present application, the proposed transactions are shown in the portfolio recommendations display and in the general information display.

In other words, the claimed invention proposes transactions based on risk information and analyst/advisor forecasts that have been processed in a specific way designed to produce valuable proposed transactions. Whereas *Wallman appears to discuss* the wholly different idea of receiving investor specified selection parameters and *merely presenting stock positions that meet the investor-selected parameters*. As a concrete example of the difference, in the tax evaluation example provided in the above-quoted section of Wallman, no stocks would be displayed that were not part of the portfolio in question. In contrast, with reference to FIG. 13 of the present application, proposed transactions can include buy recommendations for securities that are not part of the investor's portfolio (see, for example, the AAPL and BOUT buy recommendations in the portfolio recommendations display and/or the general information display of FIG. 13). Thus, Wallman does not teach the "proposes securities transactions based on a combined ranking" recitation of amended claim 51.

THE "AGGREGATION OF NORMALIZED SECURITIES RANKINGS FROM ONE OR MORE ANALYSTS" RECITATION

With respect to the "aggregation of normalized securities rankings from one or more analysts" recitation, page 8 of the Office Action merely states the following as support for the position that Wallman anticipates this recitation:

> the return ranking being based on an aggregation of normalized securities rankings from one or more analysts for each tradable security (column 30, lines 32-60; column 40, lines 40-50; security forecast ranking)

Thus, page 8 of the Office Action quotes the "aggregation of normalized securities rankings from one or more analysts" recitation, cites column 30, lines 32-60; column 40, lines 40-50 of Wallman, and appears to paraphrase the cited sections as teaching security forecast ranking. Column 30, lines 32-60; column 40, lines 40-50 of Wallman were quoted and discussed above (see pages 18 and 19) with respect to the "determining combined rankings" recitation of amended claim 11.

Column 30, lines 32-60 of the Wallman patent states in relevant part:

Referring to FIG. 4B, alternatively, or additionally, the computer-based system of the present invention also *allows the investor to be presented with suggested portfolios created through other means--such as a recommended portfolio that reflects a specified strategy, such as* the ten under performing stocks from the Dow Jones Industrial Index, or *from a selected analyst*, ... As shown in FIG. 4B, the investor can select from a category of portfolios 71-76, under each of which the investor can then select a particular type of portfolio within that category. For example, the investor can select an average portfolio for people with the same number of children as the investor by selecting "Similar Demographics" 74 and then "Number of Children" 77.

As further examples, a noted analyst may state that her ideal portfolio would be the following fifty stocks in the following proportions, or a magazine may give its picks for the "ideal" portfolio, ... In any of these types of cases, Screen 5 would make available the list of companies and the suggested allocations (or if no allocation is provided by the entity creating the list, then in accordance with appropriate diversification requirements, risk and other preferences of the investor, as provided previously). [Emphasis added.]

The cited section quoted above appears to discuss a system that can present an investor with a recommended portfolio that reflects a specified strategy such as from a selected analyst. *Presenting a portfolio recommended by a selected analyst does not teach* the claim 51 recitation that the return ranking is based on an aggregation of normalized securities rankings from one or more analysts for each tradable security because, among other reasons, merely presenting a portfolio does not make use of the analyst's *predictions/forecasts regarding individual securities, whether the securities are included in, or excluded from*, the analyst's recommended portfolio.

Column 40, lines 40-50 of the Wallman patent states:

As noted, *there will also be pre-packaged or suggested portfolios*. The present invention will keep track of those portfolios. For example, the Washingtonian picks can be displayed for an investor who can then be given the option to purchase a basket of securities that are the same as the expert's picks that have been published. The Dow 500 and the Fortune 500 top stocks may also be tracked by the present invention with the opportunity given to invest in the same top stocks as listed in the index or the magazine. Again, *performance data on the stocks and portfolios that are potential candidates for investment can be generated to further inform the investor.* [Emphasis added.]

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As noted above with respect to claim 11, the cited section quoted above appears to note that there will be suggested portfolios and that performance data on the stocks and portfolios that are potential candidates for investment can be generated to further inform the investor. It is unclear what performance data can be generated. Perhaps, as suggested by FIG. 5 of Wallman, the generated performance data is return data generated by a stock over the past 12 months. In any event, there is no discussion of the claim 51 recitation that the return ranking is based on an aggregation of normalized securities rankings from one or more analysts for each tradable security.

Thus, for the reasons cited above, the sections cited on page 8 of the Office Action (i.e., column 30, lines 32-60; column 40, lines 40-50) do not disclose the amended claim 51 "aggregation of normalized securities rankings from one or more analysts" recitation.

THE "RISK RANKING BASED ON NORMALIZED MARGINAL CONTRIBUTION TO RISK"
RECITATION

With respect to the "risk ranking based on normalized marginal contribution to risk" recitation, page 8 of the Office Action merely states the following as support for the position that Wallman anticipates this recitation:

> the risk ranking being based on a normalized marginal contribution to risk of each security to the portfolio, the normalized marginal contribution to risk having been scaled by a factor reflecting a client's risk aversion (figure 5; figure 13 and column 32, lines 58-67; risk ranking relative to the benchmark weights S&P 500 or another index)

Thus, page 8 of the Office Action quotes the "risk ranking based on normalized marginal contribution to risk" recitation, cites figure 5; figure 13 and column 32, lines 58-67 of Wallman, and appears to paraphrase the cited section as teaching "risk ranking relative to the benchmark weights S&P 500 or another index." FIGS 5 and 13 of Wallman appear to show risk relative to the S&P 500 for individual stock positions in a portfolio and portfolio risk levels as a function of the S&P 500 or another index. Column 32, lines 58-67 of Wallman states:

> *When the portfolio is displayed as a list of securities to be included in the portfolio, the risk for each such security would be shown graphically*, such as by a color or a bar next to the stock. As an example, the bar would be shaded one color (such as yellow) for stocks riskier than the average and

another color (such as blue) for those less risky than the average (see FIG. 13 for an example), or the bars would extend to the right of each listed stock for those stocks that are less risky and to the left for those that are more risky. The longer the bar, the further it departs from the average. [Emphasis added.]

The cited section of Wallman appears to suggest that when the portfolio is displayed as a list of securities to be included in the portfolio, the risk for each such security would be shown graphically. It is important to note that, as opposed to the present invention, the risk bars displayed here for each stock are specific to that stock and are constant in that they will not vary according to which portfolio the stock is held. FIGS 5 and 13 and column 32, lines 58-67 do not teach the "risk ranking based on normalized marginal contribution to risk" recitation because the cited sections of Wallman do not describe the risk values shown in FIGS. 5 and 13 as being based on normalized marginal contribution to risk. Indeed the terms normalized and marginal do not appear to be used anywhere in Wallman. Basing the risk ranking on normalized marginal contribution to risk advantageously results in more accurate portfolio risk rankings.

In sum, the Examiner does not and cannot cite a section of Wallman that teaches the "proposes securities transactions based on a combined ranking" recitation, the "aggregation of normalized securities rankings from one or more analysts" recitation, and the "risk ranking based on normalized marginal contribution to risk" recitation. In Applicants' January 31, 2005 Response, the Applicants requested, if the Examiner repeats this rejection, that the Examiner cite the specific section(s) and the specific language within the cited section(s) that the Examiner considers to teach the missing recitations. In response, the Examiner simply repeated the prior rejection verbatim.

In other words, the Examiner did not respond to Applicants' explanation of the fact that the "proposes securities transactions based on a combined ranking" recitation, the "aggregation of normalized securities rankings from one or more analysts" recitation, and the "risk ranking based on normalized marginal contribution to risk" recitation are all absent from Wallman (these arguments were made in Applicants' January 31, 2005 Amendment B and Response). The Applicants submit that the Examiner did not respond

to the Applicants' request for specificity because Wallman does not in fact teach or suggest the recitations noted above.

Thus, for the reasons cited above, amended claim 51 is not anticipated by Wallman. In addition, amended claim 51 is not obvious in view of Wallman because, among other reasons, Wallman teaches away from proposing securities transactions based on a combined ranking for each tradable security as claimed in amended claim 51. Wallman states the following in column 38, between lines 1 and 14:

> Consequently, investors will be cautioned to focus on portfolio risk/returns, not individual stock risk/return. *Again, then, there is a great advantage to investors* as described above *from being able to adjust their whole portfolio characteristics just through moving a pointer* (51a, 52a in Screen A up or down (or the hand of a dial, or the color code on a litmus-type strip, etc.)), *as opposed to having to consider and understand the effects on the portfolio from modifying individual stock positions.* Thus *less than expert investors,* for example, *can have their portfolio adjusted automatically by having the system re-weight or add cash, or leverage,* when the investor adjusts the pointers, dials or colors. [Emphasis added.]

Thus, not only does Wallman not teach the recitations noted above, but it also teaches away from proposing securities transactions based on a combined ranking for each tradable security as claimed in amended claim 51. Indeed, Wallman specifically teaches away from helping an investor to consider and understand the effects on a portfolio from modifying individual stock positions. Furthermore, amended claim 11 is not obvious in view of Wallman for the reasons provided in the Declaration filed concurrently with this Amendment and Response. Consequently, amended claim 51 is patentably distinct from the Wallman patent. ·

Independent Claim 58

As defined by independent claim 58, the claimed invention provides a system for providing trading advice for a portfolio of securities. The system includes: a ranker component operative to receive a request to rank relevant securities; a portfolio component in communication with the ranker component and operative to receive a get benchmark request from the ranker component; and a security analyst component in communication with the ranker component and operative to receive a get security

rankings request from the ranker component. *The ranker component determines risk rankings of relevant securities using portfolio minus benchmark weights in determining the combined rankings of relevant securities based at least in part on risk rankings and on security forecast rankings.*

Claim 58 recites "determining the combined rankings of relevant securities based at least in part on risk rankings and on security forecast rankings." This recitation is substantially similar to the "determining combined rankings" recitation of amended claim 11. Thus, claim 58 is patentably distinct from Wallman at least for the reasons cited above (starting on page 17) with respect to the "determining combined rankings" recitation of amended claim 11.

Amended Independent Claim 66

Claim 66 includes recitations substantially similar to the "normalizing security forecasts" recitation, the "determining combined rankings" recitation, and the "generating an order list" recitation of amended claim 11. Thus, claim 66 is patentably distinct from Wallman at least for the reasons cited above with respect to claim 11.

Amended Dependent Claim 72

Amended claim 72 depends from claim 66 and recites that normalizing security rankings includes collecting security rankings for a security from a plurality of security analysts, aggregating the security rankings for the security onto a uniform ranking scale and determining a consensus forecast from a plurality of security analysts. Contrary to the assertion on pages 3 and 12 of the Office Action, *collecting security rankings for a security from a plurality of security analysts, aggregating the security rankings for the security onto a uniform ranking scale and determining a consensus forecast from a plurality of security analysts (the "consensus forecast" recitation) as recited in amended claim 72 is completely absent from Wallman.*

Page 12 of the Office Action merely states the following as support for the position that Wallman anticipates claim 72:

Regarding to claim 72, Wallman discloses wherein obtaining security rankings comprises determining a consensus forecast from a plurality of security analysts (column 16, lines 1-22).

Thus, page 12 of the Office Action quotes the "consensus forecast" recitation of claim 72 and then merely cites column 16, lines 1-22 of Wallman. Column 16, lines 1-22 of Wallman states:

> Therefore, according to yet another aspect of the current invention, the investor could simply click on a button on the graphical investor interface and receive a proposed portfolio consisting of a selected grouping of securities like the ten under performing stocks in the Dow Index. The investor could then keep that portfolio as suggested, or modify that portfolio if desired by eliminating one of the stocks (to create the nine aforementioned) or by adding another to create eleven, or by modifying the relative weightings of the ten etc. The portfolio would then be acquired for the investor just as if the investor selected the securities to be included in that portfolio through other means. In addition, *the portfolio that is pre-packaged as a starting point for the investor could also be a portfolio recommended by another, such as* an investing magazine's picks for the next few years, or *an analyst* or investment bank's selections, or an organization's preferences (such as the AFL-CIO's or the Business RoundTable's preferences or members), or even a famous person's selections. In each case the investor obtains the benefits of the system providing a portfolio of directly owned securities, as opposed to an interest in a fund or trust.

Thus, the above-quoted section of Wallman appears to suggest that a portfolio that is pre-packaged as a starting point for an investor could be a portfolio recommended by another, such as an analyst. The cited section of Wallman is wholly unrelated to the claim 72 recitation of collecting security rankings for a security from a plurality of security analysts, aggregating the security rankings for the security onto a uniform ranking scale and determining a consensus forecast from a plurality of security analysts for the following reasons, among others. *Providing a pre-packaged portfolio from a single analyst is not equivalent to collecting security rankings for a security from a plurality of security analysts and determining a consensus forecast.*

As noted in the present application between page 9, line 31 and page 10, line 17, stocks highly recommended by analysts generally outperform the market over the long term. Similarly stocks that are unfavorably recommended by analysts generally under perform the market over the long term. Thus, the method of amended claim 72 presents

valuable advice to an individual investor who is preparing to make a transaction by determining a consensus forecast from a plurality of security analysts.

Dependent claims 15-18, 49, 53, 54, 56, 60, 65, 69, and 71

Dependent claims 15-18 depend from amended claim 11. Thus, claims 15-18 are patentably distinct from Wallman at least for the reasons provided above with respect to amended claim 11. Dependent claim 49 depends from claim 46. Thus, claim 49 is patentably distinct from Wallman at least for the reasons provided above with respect to amended claim 46. Dependent claims 53, 54, and 56 depend from claim 51. Thus, claims 53, 54, and 56 are patentably distinct from Wallman at least for the reasons provided above with respect to claim 51. Dependent claim 60 and 65 depend from claim 58. Thus, claims 60 and 65 are patentably distinct from Wallman at least for the reasons provided above with respect to amended claim 58. Dependent claims 69 and 71 depend from claim 66. Thus, claims 69 and 71 are patentably distinct from Wallman at least for the reasons provided above with respect to amended claim 66.

Issue 2— Whether claims 57, 59, 61-64, 67, 68, and 70 are patentable under 35 USC 103(a) over Wallman

Claims 57, 59, 61-64, 67, 68, and 70 stand rejected under 35 USC 103(a) as being unpatentable over Wallman. Reconsideration and withdrawal of this obviousness rejection is deemed in order and requested.

Claim 57 recites a system for providing trading advice for a portfolio of securities. The system includes: a ranker component operative to receive a request to rank relevant securities; a portfolio component in communication with the ranker component and operative to receive a get benchmark request and a get tax lots request from the ranker component; and a security analyst component in communication with the ranker component and operative to receive a get security rankings request from the ranker component.

The ranker component is operative: *to provide risk rankings* of relevant securities *using* portfolio minus benchmark weights in determining *a marginal contribution to risk associated with a relevant security*; to determine tax rankings based in part on tax lot

data; and *to determine combined rankings of relevant securities as a weighted sum of risk rankings, security forecast rankings and tax rankings*. *The ranker component determines a marginal contribution to risk by: adding a specified weighting to the portfolio in question; determining the revised contributions to factor risk and residual risk; subtracting original values; and dividing by a change in weight.* This calculation is portfolio specific for each stock. (i.e.) a security may be a highly volatile stock which could help to diversify one portfolio, but would greatly increase the volatility of another.

The system further includes an asset allocator in communication with the ranker component. *The asset allocator* receives combined rankings for relevant securities from the ranker component and *creates a trade list based at least in part on the combined rankings*.

Contrary to the assertion on pages 15-16 that claim 57 is obvious in view of Wallman, claim 57 includes recitations that are not taught or suggested by Wallman. For example, Wallman does not teach or suggest the following claim 57 recitations:

1) [determining] combined rankings of relevant securities as a weighted sum of risk rankings, security forecast rankings and tax rankings (hereinafter the "determining combined rankings as sum of risk, forecast and tax rankings" recitation);

2) [determining] a marginal contribution to risk by: adding a specified weighting to the portfolio; determining a revised contribution to factor risk and residual risk; subtracting original values; and dividing by a change in weight (hereinafter the "determining a marginal contribution to risk" recitation); and

3) [creating] a trade list based at least in part on the combined rankings (hereinafter the "creating a trade list" recitation).

THE "DETERMINING COMBINED RANKINGS AS SUM OF RISK, FORECAST AND TAX RANKINGS" RECITATION

Taking the above-quoted recitations in turn, Wallman does not disclose **or suggest** the "determining combined rankings as sum of risk, forecast and tax rankings" recitation. Indeed, the second paragraph of page 16 of the Office Action acknowledges

that "Wallman does not disclose determine [sic] combined rankings of relevant securities as a weighted sum of risk rankings, security forecast rankings and tax rankings."

But, the Office Action continues on page 16 with the following statements:

However, Wallman does disclose determine [sic] the risk rankings, security forecast rankings (figure 13, items 53a, 55a-55h, 54a, 56a-56h, and column 37, line 58-column 38, line 26, risk ranking and differential return ranking; column 16, lines 37-55; column 30, liens 32-60; column 40, 40-50; security forecast ranking), and tax rankings (column 34, lines 15-35). Moreover, *it is well known in the art to determine a combined ranking as a weighted sum of the other rankings. For example, determining the overall ranking of a student by summing all rankings from different courses, determining the overall ranking of an employee by summing all rankings from different factors, etc*. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Wallman's to apply *the* obvious *method of combining rankings for determining combined rankings of relevant securities as a weighted sum of risk rankings, security forecast rankings and tax rankings for the purpose of providing more accuracy and efficiency in ranking securities, thus providing the investor the better advise in making the investment decision to select the securities included in his portfolio based on the combined rankings, in order to satisfy the investor's investment goals*. [Emphasis added.]

Firstly, the system of the present invention allows weighing each of the rankings differently for each portfolio, depending on the needs and preferences of the beneficial owner. For example, a conservative client may put large weights on the tax and risk scores and little weight on the analyst forecasts; others may like to put more weight on the forecasts, less on the risk penalties. Using a different set of weights on employee or student rankings would be tantamount to discrimination and thus could not be "taught" by reference to such rankings.

Secondly, contrary to the above-quoted section from the Office Action, there is no motivation or suggestion in Wallman to make the indicated modification of the subject matter of Wallman to achieve the claimed invention. It is the invention as a whole that must be evaluated; "...the changes must be evaluated in terms of the whole invention, including whether the prior art provides any teaching or suggestion to one of ordinary skill in the art to make the changes [to the cited document] that would produce the patentee's method and device." Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 15 USPQ 2d. 1321 (Fed. Cir. 1990).

An Examiner is not allowed to use hindsight to pick and choose among pieces of prior art references so as to reconstruct the claimed invention. In re Fritch, 972 F.2d at 1266. As the Federal Circuit has observed on more than one occasion, "[t]o imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher." In re Fine, 837 F.2d 1071, 1075 (Fed. Cir. 1988) (quoting W.L. Gore & Assoc. v. Garlock. Inc., 721 F.2d 1540, 1553 (Fed. Cir. 1983)). See also Pentec, Inc. v. Graphic Controls Corp., 776 F.2d 309, 313, 227 USPQ 2d. 1923, (Fed. Cir. 1985) Additionally, it is improper to focus on obviousness of substitutions, instead of on invention as a whole. Gillette Co. v. S.C. Johnson & Son, Inc. 16 USPQ 2d. 1923 (Fed. Cir. 1990). Indeed, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. In re Fritch, 23 USPQ 2d 1780, 1783-84 (Fed. Cir. 1992).

Having briefly discussed certain case law regarding obviousness, *the above-quoted section of the Office Action appears to assert that the motivation for modifying the subject matter of Wallman to include the subject matter of the "determining combined rankings as sum of risk, forecast and tax rankings" recitation is to provide more accuracy and efficiency in ranking securities.* Thus, the Office Action appears to acknowledge that determining combined rankings of relevant securities as a weighted sum of risk rankings, security forecast rankings and tax rankings, as claimed, provides more accuracy and efficiency in ranking securities. The Office Action appears to further acknowledge that providing more accuracy and efficiency in ranking securities provides an investor better advice in making an investment decision, i.e., that advice based on the combined rankings helps an investor select which securities to include in the investor's portfolio in order to satisfy the investor's investment goals.

Applicants agree with this apparent acknowledgement of the value of the invention of claim 57. However, *the idea to determine combined rankings as claimed for the purpose of more accuracy and efficiency in ranking securities comes from the present application (see, e.g., page 9 between lines 7 and 32) and not from Wallman.* More specifically, the present application states on page 9 between lines 7 and 32: "[In]

another embodiment, the invention combines the rankings from multiple sources, such that the combined ranking contains the most usable information... Thus, the system provides the user advice on a large number of stocks, which she can apply in managing her portfolio and in evaluating her list of potential purchases."

Indeed, the Office Action does not cite a section in Wallman as providing the required suggestion or motivation to modify the subject matter of Wallman to achieve the invention of claim 57. As noted above, *to imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference of record conveys or suggests that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventors taught is used against its teachers.* In Applicants' January 31, 2005 Response, Applicants requested, if the Examiner repeated this obviousness rejection, that the Examiner cite the specific section of Wallman, and the specific language within that section, that the Examiner considers to provide the required suggestion or motivation. In response, the Examiner repeated the prior rejection verbatim.

In other words, the Examiner did not respond to Applicants' explanation of the fact that Wallman does not provide a motivation to modify the subject matter of Wallman to achieved the claimed subject matter (these arguments were made in Applicants' January 31, 2005 Amendment B and Response). The Applicants submit that the Examiner did not respond to the Applicants' request for specificity because Wallman does not in fact provide a suggestion to modify the subject matter of Wallman to achieve the claimed invention.

Moreover, Wallman teaches away from determining combined rankings of relevant securities as a weighted sum of risk, security forecast and tax rankings, as claimed, to provide more accuracy and efficiency in ranking securities, which in turn provides an investor better investment advice, i.e., advice that helps an investor select which securities to include in the investor's portfolio.

Wallman states the following in column 38, between lines 1 and 14:

Consequently, investors will be cautioned to focus on portfolio risk/returns, not individual stock risk/return. *Again, then, there is a great advantage to investors* as described above *from being able to adjust their whole portfolio characteristics just through moving a pointer* (51a, 52a in Screen

A up or down (or the hand of a dial, or the color code on a litmus-type strip, etc.)), *as opposed to having to consider and understand the effects on the portfolio from modifying individual stock positions.* Thus *less than expert investors,* for example, *can have their portfolio adjusted automatically by having the system re-weight or add cash, or leverage,* when the investor adjusts the pointers, dials or colors. [Emphasis added.]

This section of Wallman appears to teach away from modifying individual stock positions. In other words, not only does Wallman not teach the claim 57 recitation noted above, but it also teaches away from proposing a trade list based at least in part on a combined ranking as claimed in claim 57. Indeed, Wallman specifically teaches away from helping an investor to consider and understand the effects on a portfolio from modifying individual stock positions.

In addition, the Examiner states the following on page 16 of the Office Action:

[I]t is well known in the art to determine a combined ranking as a weighted sum of the other rankings. For example, determining the overall ranking of a student by summing all rankings from different courses, determining the overall ranking of an employee by summing all rankings from different factors, etc

The statement "it is well known in the art to determine a combined ranking as a weighted sum of the other rankings" appears to be derived from the Examiner's personal knowledge and appears to be asserted to support the rejection of claim 57 among other claims. In Applicants' January 31, 2005 Response, the Applicants respectfully requested, if the Examiner repeated the present rejection, that the Examiner provide an affidavit providing support for this statement, per 37 CFR 1.104(d)(2) and MPEP 2144.03. 37 CFR. 1.104(d)(2) states the following:

When a rejection in an application is based on facts within the personal knowledge of an employee of the Office, the data shall be as specific as possible, and the reference must be supported, when called for by the applicant, by the affidavit of such employee, and such affidavit shall be subject to contradiction or explanation by the affidavits of the applicant and other persons.

The Examiner did not provide such an affidavit. Given the lack of response, Applicants submit that any suggestion to modify the subject matter of Wallman to achieve the claimed invention, if any exists, must come from Wallman itself. As

Applicants have pointed out above, Wallman does not contain any such motivation. Indeed, when the Applicants specifically asked the Examiner to point out which section(s) of Wallman the Examiner considered to provide such a motivation, the Examiner again did not respond. In sum, Wallman does not disclose or suggest the "determining combined rankings as sum of risk, forecast and tax rankings" recitation.

THE "DETERMINING A MARGINAL CONTRIBUTION TO RISK" RECITATION

With respect to the "determining a marginal contribution to risk" recitation (i.e., determining a marginal contribution to risk by: adding a specified weighting to the portfolio; determining a revised contribution to factor risk and residual risk; subtracting original values; and dividing by a change in weight), Wallman does not teach or suggest this recitation. Page 15 of the Office Action merely states the following in support of its position that Wallman teaches this recitation:

> the ranker component determining a marginal contribution to risk by: adding a specified weighting to the portfolio; determining a revised contribution to factor risk and residual risk; subtracting original values; and dividing by a change in weight (column 24, lines 14-17; column 26 lines 10-35; adjusting percentage allocation to meet the investor's financial goals, suggesting changes to the portfolio to satisfy the investor's preference).

Thus, page 15 of the Office Action quotes the relevant recitation, cites column 24, lines 14-17 and column 26, lines 10-35 of Wallman and appears to paraphrase the cited sections as teaching "adjusting percentage allocation to meet the investor's financial goals, suggesting changes to the portfolio to satisfy the investor's preference." Column 24, lines 10-17 of Wallman states the following:

> The system....[compares] the historical and expected rates of returns of the investor's portfolio to the rates of return assumed in the asset allocation models using known probabilistic methods including value at risk and sensitivity analysis, and when determining a difference exists, ...*[suggests]* *an adjustment in the percentage allocation* to correct for the difference *so that the desired financial goals can be achieved* within the constraints set by the investor. [Emphasis added.]

Thus, as noted in the office action, the cited section of Wallman appears to teach adjusting percentage allocation to meet the investor's financial goals. Column 26, lines 10-35 of Wallman states the following:

As an example, an investor might have stated that he wished to invest solely in large capitalization, software, financial services and entertainment companies based in the United States with no negative corporate governance factors. The system then returns a listing of stocks, including obvious ones that are household names and some that are not. The system then specifies percentages of each stock to allocate to the portfolio in order to insure a reasonable level of diversification (and would alert the investor if that could not be done). One example would be dividing the total dollar amount being invested by the number of securities meeting the criteria entered by the investor and allocating an equal dollar amount or a capitalization-weighted dollar amount to each of the securities, and if there were fewer than twenty securities for example, indicating to the investor that reasonable levels of diversification were not necessarily achieved. It should be noted that other levels of diversification could be used as well.

In addition, the system specifies the level of risk for the portfolio and *__suggests changes to satisfy the investor's preferences__. __As an example, if there were insufficient companies in the above list, the system would suggest either relaxing the capitalization standard, or including more industries, such as communications, which could be viewed as similar to the non-manufacturing industries selected by the investor__*. [Emphasis added.]

Thus, Wallman appears to discuss a system that suggests changes to investor specified stock selection criteria, e.g., a capitalization standard, in order to satisfy the investor's preferences. Although Wallman appears to discuss adjusting percentage allocation to meet an investor's financial goals and suggesting changes to investor specified stock selection criteria, e.g., a capitalization standard, in order to satisfy an investor's preferences, it is not clear how Wallman achieves these two functions. Wallman does note in column 23, between lines 38 and 43, that there are many existing asset allocation models, any of which can be employed. Presumably one of these models is employed to adjust percentage allocation to meet an investor's financial goal as discussed in Wallman.

In any event, the cited sections of Wallman simply do not disclose or suggest a ranker component that determines a marginal contribution to risk by: adding a specified weighting to the portfolio; determining a revised contribution to factor risk and residual risk; subtracting original values; and dividing by a change in weight, as claimed. Such a ranker component advantageously allows the system to provide accurate trading advice including creating a trade list based on realistic trade increments.

THE "CREATING A TRADE LIST" RECITATION

With respect to the "creating a trade list" recitation, Wallman does not disclose or

suggest creating a trade list based on combined rankings of relevant securities, the

combined rankings being a weighted sum of risk, security forecast and tax rankings, as

claimed. Page 16 of the Office Action states the following in support of the obviousness

rejection of claim 57 in view of Wallman:

> an asset allocator in communication with the ranker component, the asset
> allocator operative to receive combined rankings for relevant securities from
> the ranker component and to create a trade list based at least in part on the
> combined rankings (column 23, lines 21-60; the asset allocation model 1).

Thus, page 16 of the Office Action quotes the relevant recitation and merely cites

column 23, lines 21-60 and the asset allocation model 1 from FIG. 1 of Wallman.

Column 23, lines 21-60 of Wallman states in relevant part:

> In the asset allocation model 1; an investor is first queried for answers to a
> series of questions that determine investor data ... the investor's risk
> tolerance and financial goals and objectives, ... the investor's preferred
> risk-return characteristics, the investor's preferences for various types of
> securities and preferred portfolio mix, ... *There are a variety of different*
> *outputs for the asset allocation model. One formulation is an amount that*
> *the investor should invest in long-term investments, medium-term*
> *investments, and short-term investments. The asset allocation model*
> *determines a percentage allocation in each of the general investment types*
> *according to a set of known tables.* There are many existing asset allocation
> models, any of which can be employed in the present invention, ...

> An exemplary questionnaire used for input to any of the above asset
> allocation models is depicted in FIG. 2. FIG. 3 depicts an exemplary output
> of such an asset allocation model.

> The investor can enter the system at various stages, however, and need not
> answer all the questions. For example, the investor could start at the
> beginning, presenting all the basic information about age, income,
> liabilities, financial goals, etc. In that instance, the computer-based system
> of the present invention utilizes any of the known and publicly available
> asset allocation models, or a combination of such models, to provide
> information to the investor as to the percentage of investable assets that
> should be allocated, generally, to short-term liquid investments .., medium
> term investments ..., and long-term investments ....

Thus, With reference to FIG. 1, the above-quoted section of Wallman appears to indicate: that there are a variety of different outputs for the asset allocation model; that one formulation is an amount that the investor should invest in long-term investments, medium-term investments, and short-term investments; and that the asset allocation model determines a percentage allocation in each of the general investment types according to a set of known tables.

In contrast, the invention as claimed in amended claim 57 creates a trade list, e.g., a buy/sell list, based on the recited combined rankings. For example, with reference to FIGS. 12 and 13, the portfolio recommendation section 252 and the general information section (FIG. 13) of the illustrated graphical user interfaces include trade lists, e.g., buy and sell recommendations, that a system according to the invention generates based on the recited combined rankings. Creating a trade list advantageously allows an investor to receive recommendations for a small number of specific trades. The recommendations based on combined rankings being a weighted sum of risk, security forecast and tax rankings.

In addition, as noted above, claim 57 is not obvious in view of Wallman because, among other reasons, Wallman teaches away from considering individual proposed trades as would be presented in the trade list that results from claim 57. Wallman states the following in column 38, between lines 1 and 14:

> Consequently, investors will be cautioned to focus on portfolio risk/returns, not individual stock risk/return. *Again, then, there is a great advantage to investors* as described above *from being able to adjust their whole portfolio characteristics just through moving a pointer* (51a, 52a in Screen A up or down (or the hand of a dial, or the color code on a litmus-type strip, etc.)), *as opposed to having to consider and understand the effects on the portfolio from modifying individual stock positions.* Thus *less than expert investors,* for example, *can have their portfolio adjusted automatically by having the system re-weight or add cash, or leverage,* when the investor adjusts the pointers, dials or colors. [Emphasis added.]

Thus, not only does Wallman not teach the above-noted recitations, but it also teaches away from creating a trade list of proposed transactions. Indeed, Wallman specifically teaches away from helping an investor to consider and understand the effects

on a portfolio from modifying individual stock positions. Consequently, claim 57 is patentably distinct from the Wallman patent.

In sum, the Examiner does not and cannot cite sections of Wallman that teach or suggest the "determining combined rankings as sum of risk, forecast and tax rankings" recitation the "determining a marginal contribution to risk" recitation; and the "creating a trade list" recitation. In Applicants' January 31, 2005 Response, Applicants requested, if the Examiner repeated this rejection, that the Examiner cite the specific section(s) and the specific language within the cited section(s) that the Examiner considers to teach or suggest the missing recitations. In response, the Examiner repeated the prior rejection verbatim.

In other words, the Examiner did not respond to Applicants' explanation of the fact that Wallman does not provide a motivation to modify the subject matter of Wallman to achieve the claimed subject matter (these arguments were made in Applicants' January 31, 2005 Amendment B and Response). The Applicants submit that the Examiner did not respond to the Applicants' request for specificity because Wallman does not in fact provide a suggestion to modify the subject matter of Wallman to achieve the claimed invention.

Thus, for the reasons cited above, claim 57 is not taught or suggested by Wallman.

Dependent claims 59, 62, 64, and 67

Dependent claims (1) 59, 62, 64, and (2) 67 depend from independent claims 58 and 66, respectively. In addition, these claims include recitations that are substantially similar to some of the recitations just discussed with respect to independent claim 57. Thus, claims (1) 59, 61, 62, 64, and (2) 67 are patentably distinct from Wallman for the reasons provided above with respect to independent claims 57, 58 and/or 66.

Dependent claims 61 and 68

Dependent claims 61 and 68 depend from independent claims 58 and 66, respectively. Claims 61 and 68 include the following substantially similar recitation: wherein *the ranker component is operative to determine a risk ranking for a relevant security by determining a marginal contribution to risk associated with the relevant*

security and wherein the ranker component is operative to determine the combined rankings as a weighted sum of the risk rankings and the security forecast rankings.

The Office Action merely states the following, between the bottom of page 13 and the top of page 14, in support of the position that claims 61 and 68 are obvious in view of Wallman:

> ***Wallman does not disclose wherein the ranker component is operative to determine a risk ranking for a relevant security by determining a marginal contribution to risk associated with the relevant security (figure 5; figure 13 and column 32, lines 58-67; determining risk ranking relative to benchmark weights S&P 500 or another index);*** **Wallman does not disclose** wherein the ranker component is operative to determine the combined rankings as a weighted sum of the risk rankings and the security forecast rankings (see claim 57 for more details). [Emphasis added.]

Thus, the cited section of the Office Action notes that Wallman does not disclose the relevant recitations, cites Wallman's figure 5, figure 13 and column 32, lines 58-67, appears to paraphrase the cited figures and section as teaching determining risk ranking relative to benchmark weights S&P 500 or another index, and states "see claim 57 for more details." Wallman's Figs. 5 and 13 appear to show risk relative to the S&P 500 for individual stock positions in a portfolio and portfolio risk levels as a function of the S&P 500 or another index. Again, it is important to note below that the risk bars displayed here for each stock do not appear to vary according to the details of the portfolio in which the stock is held. Column 32, lines 58-67 of Wallman states:

> *When the portfolio is displayed as a list of securities to be included in the portfolio, the risk for each such security would be shown graphically*, such as by a color or a bar next to the stock. As an example, the bar would be shaded one color (such as yellow) for stocks riskier than the average and another color (such as blue) for those less risky than the average (see FIG. 13 for an example), or the bars would extend to the right of each listed stock for those stocks that are less risky and to the left for those that are more risky. The longer the bar, the further it departs from the average. [Emphasis added.]

The cited section of Wallman quoted above appears to suggest that when the portfolio is displayed as a list of securities to be included in the portfolio, the risk for each such security would be shown graphically. Figs. 5 and 13 and column 32, lines 58-67 do not teach (as acknowledged by the office action) or suggest determining "a risk ranking for a

relevant security by determining a marginal contribution to risk associated with the relevant security" as recited because the cited materials of Wallman do not describe the risk values shown in FIGS. 5 and 13 as being based on a marginal contribution to risk associated with the relevant security for the particular portfolio in question. Indeed the term marginal does not appear to be used anywhere in Wallman. Basing a risk ranking on a marginal contribution to risk associated with a relevant security advantageously results in more accurate risk rankings and rankings that are customized for that particular portfolio. Thus, for the reasons cited above, claims 61 and 68 are patentably distinct from Wallman.

Dependent claims 63 and 70

Dependent claim 63 depends from claim 62. Claim 62 depends from claim 61 which in turn depends form claim 58. Claims 58 and 61 have been discussed above. Claim 62 recites that "the ranker component is operative to determine a risk ranking for a relevant security by adding a specified weighting to the portfolio, determining a revised contribution to factor risk and residual risk, subtracting original values, and dividing by a change in weight." Claim 63 recites that "the ranker component is operative to determine a risk ranking for a relevant security by: for the relevant security adding about a 0.1% weighting to the portfolio."

Contrary to the assertion on pages 15, 17 and 18 of the Office Action, Applicants respectfully assert that the invention of claim 63 is not obvious in view of Wallman because of the reasons provided above with respect to claims 58 and 62 and also because of the specific subject matter recited in claim 63. Pages 17 and 18 of the Office Action acknowledge that "Wallman does not disclose wherein the ranker component is operative to determine a risk ranking for a relevant security by adding about a 0.1% weighting to the portfolio." But, page 18 of the Office Action continues to state:

> However, Wallman does disclose adding a specified weighting to the portfolio (column 24, lines 14-17; adjusting percentage allocation to meet the investor's financial goals). Moreover, adding 0.1% weighting to the portfolio is a desired choice, in Wallman the investor allows to adjust the percentage allocation in his portfolio, thus the investor could add a specific weighting such as 0.1% weighting to meet his financial goal. Therefore, it would have been obvious to one with ordinary skill in the art at the time the

invention was made to modify Wallman's to include the feature above for the purpose of allowing the investor to modify his portfolio in order to meet his financial goals.

With respect to the statement in the quote directly above that Wallman does disclose adding a specified weighting to the portfolio, the Applicants have explained above with respect to the "determining a marginal contribution to risk" recitation of claim 57 that although Wallman appears to discuss adjusting percentage allocation to meet an investor's financial goals, it is not clear how Wallman achieves this result. Wallman does note in column 23, between lines 38 and 43, that there are many existing asset allocation models, any of which can be employed. Presumably one of these models is employed to adjust percentage allocation to meet an investor's financial goal as discussed in Wallman.

In any event, the cited section of Wallman simply does not disclose or suggest a ranker component operative to determine a risk ranking for a relevant security by: for the relevant security adding about a 0.1% weighting to the portfolio; determining a revised contribution to factor risk and residual risk; subtracting original values; and dividing by a change in weight, as claimed. In other words, Wallman appears merely to discuss adjusting allocation. In contrast, and with reference to page 41 of the specification of the present application, the claimed invention is determining a portfolio specific marginal risk by adding a discrete-sized (versus infinitesimal) change: for the relevant security about 0.1% weighting, and determining the marginal contribution to risk as a result of the discrete-sized addition of that particular security. In other words, because trades actually occur in discrete sizes, a portfolio manager or investor, using the methods and systems of the claimed invention, receives more accurate feedback, e.g., on the impact on a portfolio of a proposed trade. Thus, the Applicants respectfully assert that the rejection of claims 63 and 70 as obvious in view of Wallman is traversed.

APPELLANT HAS PROVIDED EVIDENCE INDICATING NON-OBVIOUSNESS VIA A 37 CFR 1.132 DECLARATION SUBMITTED MARCH 16, 2005 AND THE EXAMINER DID NOT CONSIDER THE EVIDENCE CONTRARY TO THE CLEAR REQUIREMENTS OF MPEP 716.01

Section 2141 of the Manual of Patent Examining Procedure states that office policy is to follow *Graham v. John Deere Co.* 383 U.S. 1, 148 USPQ 459 (1966), in the

consideration and determination of obviousness under 35 U.S.C. 103. The four factual

inquires enunciated therein as a background for determining obviousness are as follows:

(A) Determining the scope and contents of the prior art;

(B) Ascertaining the differences between the prior art and the claims in issue;

(C) Resolving the level of ordinary skill in the pertinent art; and

(D) *Evaluating evidence of secondary considerations.*

Applicants submitted evidence of secondary considerations via a Declaration

entitled Declaration of Paul Samuelson, Ph.D. Under 37 CFR 1.132 (hereinafter "the

Declaration") with Applicants' January 31, 2005 response. A copy of the Declaration is

attached as Appendix I. Section 716.01 of the manual of patent examining procedure

(MPEP) states in relevant part:

> [D]eclarations, when timely presented, containing evidence of ...
> commercial success, long-felt but unsolved needs, ..., etc., must be
> considered by the examiner in determining the issue of obviousness of
> claims for patentability under 35 U.S.C. 103. The Court of Appeals for the
> Federal Circuit stated in *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530,
> 1538, 218 USPQ 871, 879 (Fed. Cir. 1983) that "evidence rising out of the
> so-called 'secondary considerations' must always when present be
> considered en route to a determination of obviousness."

Contrary to the statement in MPEP 716.01 that "declarations, when timely

presented, containing evidence of commercial success, long-felt but unsolved needs, etc.,

must be considered by the examiner in determining the issue of obviousness of claims for

patentability under 35 U.S.C. 103," the August 5, 2005 final Office Action did not

mention the declaration or indicate in any way that the Examiner considered the objective

evidence of long-felt but unsolved needs and commercial success provided in the

declaration.

A discussion of the substance and relevance of the Declaration now follows.

Long-Felt Need

Upstream Technologies ("Upstream"), the assignee of the present application, provides

software applications designed to meet the needs of managed accounts asset managers. In

September 2004, an article entitled "Portfolio Management Systems Mature" (authored by Robert Stowsky, president and CEO of Brook Path Partners, an investment technology consulting firm) appeared in Waters Magazine. According to the Waters Magazine website, the Waters magazine covers the practical implementation of technology in the securities industry. A copy of the article was attached to the Declaration. The article states the following:

Recently, a venture capital firm asked to use the model to *identify needs* and .emerging trends *in the investment industry and to identify the vendors whose products address those needs* and trends. *We discovered that there are only a small number of vendors who provide tools that specifically address a portfolio manager's activities. A survey of products that provide portfolio management functions will, for the most part, result in a list of order management and portfolio accounting systems that have a limited amount of portfolio management functionality*. Further investigation shows that at some installations these systems never end up on a portfolio manager's desk even as they are being used by that firm for trading or accounting, respectively.

What the order management and accounting systems lack are some of the basic tools required for constructing and maintaining a portfolio. Portfolios are usually constructed by taking an investor's objective and tolerance for risk and matching them to an existing benchmark. For example, if those objectives and risk tolerances happen to match closely the overall US equity market, then the S&P 500 index becomes the benchmark onto which to base the portfolio. If the match is closer to an emerging equity market, an index may be the appropriate benchmark.

Benchmark indices exist that reflect almost every type of equity or debt market throughout the world. In our example of a portfolio using the S&P 500 as its benchmark, it is up to the portfolio manager to select a combination of stocks or other investments that can emulate, or exceed, the behavior of the S&P 500, but at a lower cost of ownership, or less risk, than owning all 500 stocks that make up the index.

In most cases, master portfolios are created for the major indices and are then cloned across customers' accounts. A cloned portfolio may then be slightly modified from the original to meet the particular requirements of its specific account, such as compliance and tax restrictions. In addition to an individual stock's performance and related market conditions, factors that play into the construction of a portfolio may include the amount of cash available for investment and the transaction costs for the purchase, or sale, of shares needed to meet the portfolio's objectives.

Once the portfolio and its clones are created, they will need to be evaluated periodically to measure how closely they are tracking their benchmark. If the portfolio veers far enough from its benchmark, then the manager will need to decide what shares should be sold or bought to bring the portfolio back in line. Aside from the initial trades required for construction, it is this rebalancing of portfolios that

generate the vast majority of a buy-side firm's trading volume. It is also these processes of construction, cloning and rebalancing for which few products aim to provide functionality.

If Not Excel, Then What?

Anyone looking for proof of the scarcity of tools that can perform the complex calculations required for creating and maintaining portfolios need only take a quick inventory of the number of Microsoft Excel spreadsheets on desks of portfolio managers throughout the investment industry. A combination of some clever macro programming and third-party add-ins can create the toolset needed for portfolio construction and rebalancing.

However, spreadsheets have their drawbacks. These include the inability to integrate with external systems such as compliance and risk, difficulty in maintenance by anyone else but the spreadsheet's author, and inability to scale upward to meet demands across the firm. To meet these requirements *a small number of vendors are now offering tools that specifically address the portfolio manager.* ***A leading vendor in this area is Upstream Technologies, whose IMS product addresses the construction, cloning and rebalancing phases of portfolio management and can integrate with external systems that provide customer, compliance, risk and research information. Upstream's system also integrates directly with the Lava and Credit Suisse First Boston Advanced Execution Services (CSFB AES) trading platforms, or can generate trades to an OMS.***

Other vendors in this area include Barra and Northfield Information Services [NIS], both of which, like Upstream, provide models for portfolio construction and risk analysis. Users of these three vendors include managers of mutual funds, plan sponsors, hedge funds and separately managed accounts. Another vendor, Vestmark, provides a portfolio management system aimed specifically at managers of separately managed accounts. Unlike Excel, these systems are scalable and support the increasingly important functions of compliance and risk. [Emphasis added]

Thus, the above-quoted Waters article discusses identifying needs in the investment industry and identifying vendors whose products address those needs. The 2004 article continues to state that there are only a small number of vendors who provide tools that specifically address a portfolio manager's activities and notes Upstream as a leading vendor in this area. As indicated by the Waters article, Upstream's Investment Management System (IMS), which embodies the claimed invention of the present application, satisfies a long-felt need in the investment industry and addresses a portfolio manager's activities.

Commercial Success

Despite a sharp downturn in the financial sectors starting in 2000, Upstream has enjoyed commercial success because of the unique utility of Upstream's IMS, which embodies the claimed invention of the present application.

Upstream was founded in late 1999. For about the next eighteen months Upstream performed research and development. In early 2001, it began beta testing its solution with its first client, American Century, a large institutional asset manager ("American Century"). As a result, American Century executed a full license with Upstream and, since 2002, has been using Upstream's IMS.

In early 2002, Upstream agreed to a testing phase with Putnam Investments ("Putnam"). Putnam evaluated other companies in Upstream's sector . Putnam executed a license with Upstream. In 2002, Putnam started using Upstream IMS.

In early 2003, Lava Trading, a large New York-based technology provider now owned by Citigroup, expressed interest in investing in a company in Upstream's sector. It evaluated several companies in Upstream's sector and decided that Upstream was the company in which it wanted to invest. This investment was reported in Wall Street & Technology (a periodical covering business technology for the securities industry) in a May 15, 2003 article entitled "Lava Trading Sees the Upside In Separate Accounts." A copy of this article was attached to the Declaration. Lava Trading made a second investment in Upstream in 2004.

In late 2003, Upstream competed with a variety of other companies in its sector in an effort to establish a business relationship with Frank Russell Securities, one of the West Coast's largest asset managers ("Frank Russell"). Upstream won the competition and Frank Russell licensed Upstream's IMS.

In early 2004, Upstream won a competition conducted by Pioneer Investments, another very large asset manager ("Pioneer"). Pioneer chose Upstream's solution and entered into a license with Upstream.

In 2004, Credit Suisse First Boston, like Lava Trading, decided to invest in a company in Upstream's sector in order to enhance its own services. It evaluated several companies and chose Upstream, completing its investment in June 2004.

Thus, the Declaration submitted that the commercial success of Upstream's IMS has resulted from the claimed invention in that the claimed invention provides an IMS that has a combination of characteristics/features not found in any other offering known to me. The features include the ability to:

Track Portfolios – format to automate daily portfolio monitoring;

Manage-by-Exception – Automatically flag accounts that violate user-defined thresholds;

Build Model Portfolios – Create a number of model portfolios;

Manage Multi-Discipline Accounts – Manage in-house or overlay portfolios with multiple asset classes and multiple styles;

Manage Risk – Integrate risk factors into trade decisions using Upstream's risk model;

Control Dispersion – Rebalance or optimize portfolios versus a model or benchmark;

Conduct "What-if" Analysis – Display trade recommendations, edit and select alternatives and review potential portfolio impact;

Pre-trade Evaluation and Review - Review suggested trade recommendations prior to generating trade orders; and

Manage Tax Efficiency – Include tax implications of trades for tax sensitive/advantaged portfolios.

These characteristics/features are enabled by the subject matter claimed in the present application. See. e.g., claims 11, 15-18, 46, 51-54, 56-72, and 74-76 and FIGS. 1-16, 18 and 20 and associated text from the specification.

The Declaration submitted that the commercial success Upstream has enjoyed in the marketing of Upstream's IMS is primarily attributable to its unique combination of features (enabled by the claimed subject matter) since no extensive amount of advertising was conducted

for Upstream's IMS. The total amount spent by Upstream on all advertising for Upstream's IMS from early 2001 to the present is less than $20,000.

Samuelson's declaration concludes in light of the above, by stating that the differences between the subject matter claimed in claims 57, 59, 61-64, 67, 68, and 70 and Wallman would not have been obvious to one of ordinary skill in the art at the time the invention was made for the reasons provided on pages 32-44 in the January 31, 2005 Amendment and Response. The Declaration further stated that the systems and methods of claims 57, 59, 61-64, 67, 68, and 70 are not obvious in view of Wallman in that, notwithstanding the need for tools that specifically address a portfolio manager's activities, (as the above-quoted Waters article notes) as of about September 2004 only a small number of vendors were offering tools that specifically address the portfolio manager and Upstream in offering its IMS (which incorporates the claimed subject matter) is a leading vendor in this area. Finally the Declaration concluded in light of facts outlined above that the long-felt need for tools that specifically address a portfolio manager's activities and the commercial success enjoyed by Upstream's IMS, which incorporates the claimed subject matter (e.g., claims 57, 59, 61-64, 67, 68, and 70), are indicia of nonobviousness of the claimed subject matter.

Conclusion

For the extensive reasons advanced above, Appellant respectfully but forcefully contends that each claim is patentable. Therefore, reversal of all rejections is courteously solicited.

A petition for an extension of time under 37 C.F.R. 1.136 is being filed herewith. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 50-0311, Attorney Ref. No. 24309-501, **Customer Number 30623** and please credit any excess fees to such deposit account.

Respectfully submitted,

for T.H. Clark Reg No 54,039

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Dated: April 3, 2006

Appendix I – Evidence Appendix

Copy of Declaration of Paul Samuelson, Ph.D Under 37 CFR 1.132

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS:	Mark Hoffman et al.		
ASSIGNEE:	Upstream Technologies		
SERIAL NUMBER:	09/696,762	EXAMINER:	Nga B. Nguyen
FILING DATE:	October 25, 2000	ART UNIT:	3628
FOR:	INVESTMENT ADVICE SYSTEMS AND METHODS		

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

DECLARATION OF PAUL SAMUELSON, Ph.D. UNDER 37 C.F.R. §1.132

I, Paul Samuelson, declare and state that:

1. I am Director of Research at Upstream Technologies ("Upstream"), the assignee of the above-referenced application. Prior to working at Upstream , I founded Samuelson Portfolio Strategies in order to translate investment managers' ideas into high performing investment strategies. I have almost 30 years of experience in building, maintaining and representing portfolio strategies. From 1993-1998, I was Chief Investment Officer at PanAgora Investment Management, Boston and London; I was Partner, Fixed Income Securities, at Hagler, Mastrovita and Hewitt, Boston from 1991-1993; Vice President Colonial Management Associates, Boston 1986-1991; Consultant Acadian Financial Management, Boston 1981-1986; and Director of Portfolio Analysis at The Ford Foundation, New York from 1978-1981.

2. I graduated Phi Beta Kappa and Cum Laude from Williams College B.A. (1975) and hold a Ph.D. (1986) and a M.S.M. (1977) from the Massachusetts Institute of Technology

3. I have reviewed the instant application and the August 12, 2004 Office Action in this case. I have also reviewed U.S. Patent No. 6,601,044 issued to Wallman (hereinafter "Wallman") upon which the rejections in the August 12, 2004 Office Action are based.

Long-Felt Need

4. Upstream provides software applications designed to meet the needs of managed accounts asset managers. In September 2004, an article entitled "Portfolio Management Systems Mature" (authored by Robert Stowsky, president and CEO of Brook Path Partners, an investment technology consulting firm) appeared in Waters Magazine. According to the Waters Magazine website, the Waters magazine covers the practical implementation of technology in the securities industry. A copy of the article is attached as Appendix I. The article states the following:

> Recently, a venture capital firm asked to use the model to *identify needs* and emerging trends *in the investment industry and to identify the vendors whose products address those needs* and trends. *We discovered that there are only a small number of vendors who provide tools that specifically address a portfolio manager's activities. A survey of products that provide portfolio management functions will, for the most part, result in a list of order management and portfolio accounting systems that have a limited amount of portfolio management functionality.* Further investigation shows that at some installations these systems never end up on a portfolio manager's desk even as they are being used by that firm for trading or accounting, respectively.
>
> *What the order management and accounting systems lack are some of the basic tools required for constructing and maintaining a portfolio.* Portfolios are usually constructed by taking an investor's objective and tolerance for risk and matching them to an existing benchmark. For example, if those objectives and risk tolerances happen to match closely the overall US equity market, then the S&P 500 index becomes the benchmark onto which to base the portfolio. If the match is closer to an emerging equity market, an index may be the appropriate benchmark.
>
> Benchmark indices exist that reflect almost every type of equity or debt market throughout the world. In our example of a portfolio using the S&P 500 as its benchmark, it is up to the portfolio manager to select a combination of stocks or other investments that can emulate, or exceed, the

behavior of the S&P 500, but at a lower cost of ownership, or less risk, than owning all 500 stocks that make up the index.

In most cases, master portfolios are created for the major indices and are then cloned across customers' accounts. A cloned portfolio may then be slightly modified from the original to meet the particular requirements of its specific account, such as compliance and tax restrictions. In addition to an individual stock's performance and related market conditions, factors that play into the construction of a portfolio may include the amount of cash available for investment and the transaction costs for the purchase, or sale, of shares needed to meet the portfolio's objectives.

Once the portfolio and its clones are created, they will need to be evaluated periodically to measure how closely they are tracking their benchmark. If the portfolio veers far enough from its benchmark, then the manager will need to decide what shares should be sold or bought to bring the portfolio back in line. Aside from the initial trades required for construction, it is this rebalancing of portfolios that generate the vast majority of a buy-side firm's trading volume. It is also these processes of construction, cloning and rebalancing for which few products aim to provide functionality.

If Not Excel, Then What?

Anyone looking for proof of the scarcity of tools that can perform the complex calculations required for creating and maintaining portfolios need only take a quick inventory of the number of Microsoft Excel spreadsheets on desks of portfolio managers throughout the investment industry. A combination of some clever macro programming and third-party add-ins can create the toolset needed for portfolio construction and rebalancing.

However, spreadsheets have their drawbacks. These include the inability to integrate with external systems such as compliance and risk, difficulty in maintenance by anyone else but the spreadsheet's author, and inability to scale upward to meet demands across the firm. To meet these requirements *a small number of vendors are now offering tools that specifically address the portfolio manager.* **A leading vendor in this area is Upstream Technologies, whose IMS product addresses the construction, cloning and rebalancing phases of portfolio management and can integrate with external systems that provide customer, compliance, risk and research information. Upstream's system also integrates directly with the Lava and Credit Suisse First Boston Advanced Execution Services (CSFB AES) trading platforms, or can generate trades to an OMS.**

Other vendors in this area include Barra and Northfield Information Services [NIS], both of which, like Upstream, provide models for portfolio construction and risk analysis. Users of these three vendors include

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managers of mutual funds, plan sponsors, hedge funds and separately managed accounts. Another vendor, Vestmark, provides a portfolio management system aimed specifically at managers of separately managed accounts. Unlike Excel, these systems are scalable and support the increasingly important functions of compliance and risk. [Emphasis added]

5. Thus, the above-quoted Waters article discusses identifying needs in the investment industry and identifying vendors whose products address those needs. The 2004 article continues to state that there are only a small number of vendors who provide tools that specifically address a portfolio manager's activities and notes Upstream as a leading vendor in this area. As indicated by the Waters article, Upstream's Investment Management System (IMS), which embodies the claimed invention of the present application, satisfies a long-felt need in the investment industry and addresses a portfolio manager's activities.

Commercial Success

6. Despite a sharp downturn in the financial sectors starting in 2000, in my opinion Upstream has enjoyed commercial success because of the unique utility of Upstream's IMS, which embodies the claimed invention of the present application.

7. Upstream was founded in late 1999. For about the next eighteen months Upstream performed research and development. In early 2001, it began beta testing its solution with its first client, American Century, a large institutional asset manager ("American Century"). As a result, American Century executed a full license with Upstream and, since 2002, has been using Upstream's IMS.

8. In early 2002, Upstream agreed to a testing phase with Putnam Investments ("Putnam"). Putnam evaluated other companies in Upstream's sector. Putnam executed a license with Upstream. Since 2002, Putnam has been using Upstream IMS.

9. In early 2003, Lava Trading, a large New York-based technology provider now owned by Citigroup, expressed interest in investing in a company in Upstream's sector. It evaluated several companies in Upstream's sector and decided that Upstream was the company in which it wanted to invest. This investment was reported in Wall Street & Technology (a periodical covering business technology

for the securities industry) in a May 15, 2003 article entitled "Lava Trading Sees the Upside In Separate Accounts." A copy of this article is attached as Appendix II. Lava Trading made a second investment in Upstream in 2004.

10. In late 2003, Upstream competed with a variety of other companies in its sector in an effort to establish a business relationship with Frank Russell Securities, one of the West Coast's largest asset managers ("Frank Russell"). Upstream won the competition and Frank Russell licensed Upstream's IMS.

11. In early 2004, Upstream beat out its competitors in a competition conducted by Pioneer Investments, another very large asset manager ("Pioneer"). Pioneer chose Upstream's solution and entered into a license with Upstream.

12. In 2004, Credit Suisse First Boston, like Lava Trading, decided to invest in a company in Upstream's sector in order to enhance its own services. It evaluated several companies and chose Upstream, completing its investment in June 2004.

13. Most recently, Upstream completed a contract with one of the largest financial institutions in the world whereby this institution has licensed Upstream's IMS in order to resell it to the financial sector. This institution conducted a review of companies in Upstream's sector and chose Upstream.

14. In my opinion, commercial success of Upstream's IMS has resulted from the claimed invention in that the claimed invention provides an IMS that has a combination of characteristics/features not found in any other offering known to me. The features include the ability to:

Track Portfolios – format to automate daily portfolio monitoring;

Manage-by-Exception – Automatically flag accounts that violate user-defined thresholds;

Build Model Portfolios – Create a number of model portfolios;

Manage Multi-Discipline Accounts – Manage in-house or overlay portfolios with multiple asset classes and multiple styles;

Manage Risk – Integrate risk factors into trade decisions using Upstream's risk model;

Control Dispersion – Rebalance or optimize portfolios versus a model or benchmark;

Conduct "What-if" Analysis – Display trade recommendations, edit and select alternatives and review potential portfolio impact;

Pre-trade Review - Review suggested trade recommendations prior to generating trade orders; and

Manage Tax Efficiency – Include tax implications of trades for tax sensitive/advantaged portfolios.

15. These characteristics/features are enabled by the subject matter claimed in the present application. See. e.g., claims 11, 15-18, 46, 51-54, 56-72, and 74-76 and FIGS. 1-16, 18 and 20 and associated text from the specification.

16. In my opinion, the commercial success that Upstream has enjoyed in the marketing of Upstream's IMS is primarily attributable to its unique combination of features (enabled by the claimed subject matter) since no extensive amount of advertising was conducted for Upstream's IMS. The total amount spent by Upstream on all advertising for Upstream's IMS from early 2001 to the present is less than $20,000.

Conclusion

17. I understand that claims 57, 59, 61-64, 67, 68, and 70 stand rejected as being obvious in view of Wallman. In my opinion the differences between the subject matter claimed in claims 57, 59, 61-64, 67, 68, and 70 and Wallman would not have been obvious to one of ordinary skill in the art at the time the invention was made for the reasons provided on pages 32-44 in the Amendment and Response being filed concurrently with this Declaration. Furthermore, in my opinion, the systems and methods of claims 57, 59, 61-64, 67, 68, and 70 are not obvious in view of Wallman in that, notwithstanding the need for tools that specifically address a portfolio manager's activities, (as the above-quoted Waters article notes) as of about September 2004 only a small number of vendors were offering tools

that specifically address the portfolio manager and Upstream in offering its IMS (which incorporates the claimed subject matter) is a leading vendor in this area.

18. In my opinion, the long-felt need for tools that specifically address a portfolio manager's activities and the commercial success enjoyed by Upstream's IMS, which incorporates the claimed subject matter (e.g., claims 57, 59, 61-64, 67, 68, and 70), are indicia of nonobviousness of the claimed subject matter.

19. I declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001 and that willful false statements may jeopardize the validity of this application and any patent issuing therefrom.

Dated: _1/ 2 7 / 0 5_   Signed: _Paul Samuelson_

PAUL SAMUELSON

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Appendix II – Clean Copy of the Claims

Claims 1-10 (cancelled).

11.   A computer-implemented method for providing investment advice to a client over a computer network, the method comprising:

providing a database maintaining portfolio information for a plurality of securities portfolios;

providing a server computer operably coupled to the database and accessible via client computers to a plurality of clients, the server computer including:

an asset allocator operative to receive one of a spend cash request, a raise cash request, a rebalance request, and a re-rank request;

a ranker component in communication with the asset allocator;

a security analyst component in communication with the asset allocator; and

a portfolio component in communication with the asset allocator; and

managing a securities portfolio identified by the database for a client by:

receiving portfolio information;

using a ranker component to pass a get benchmark request to the portfolio component;

normalizing security forecasts from at least one advisor and translating the normalized forecasts into security forecast rankings;

using a ranker component to pass a get security rankings request to a security analyst component;

determining risk rankings for relevant securities using portfolio minus benchmark weights;

determining combined rankings for proposed trades of relevant securities based at least in part on risk rankings and on security forecast rankings; and

generating an order list based on the combined rankings.

Claims 12-14 (cancelled).

15. The computer-implemented method of claim 11, wherein the portfolio information maintained by the database includes tax lot information.

16. The computer-implemented method of claim 15, wherein managing a securities portfolio includes:

requesting tax lot information from the database for the portfolio, and

proposing securities transactions to the client based at least in part on the tax lot information for the securities portfolio.

17. The computer-implemented method of claim 16, wherein providing a server comprises:

providing a server including a broker connection aggregator; and wherein managing a securities portfolio further comprises:

invoking the broker connection aggregator to provide a connection to a plurality of brokers over a computer network and to allow a client to execute securities transactions, through the broker connection, for securities portfolios identified by the database.

18. The computer-implemented method of claim 11, wherein providing a server further comprises

providing a server including a portfolio tracker; and wherein managing a securities portfolio further comprises
invoking the portfolio tracker to receive portfolio information for a securities portfolio from a client and to store the portfolio information for the securities portfolio in the database.

Claims 19-45 (cancelled).

46. A computer data signal embodied in a carrier wave, the computer data signal being transferred between an investment advice server and a user's client computer, the computer data signal comprising:

portfolio information associated with a user's investment portfolio;

benchmark information associated with the user's investment portfolio;

risk ranking information;

stock rating information; and

instructions for a client's browser to display:

a trade station display including a mechanism operative to receive at least one trade request;

a holdings display operative to depict a relationship between the portfolio information and the benchmark information;

an analysis display including a current risk ranking and stock rating and a projected risk ranking and stock rating, wherein the analysis display allows a client to compare a current portfolio's average to a projected portfolio's average after a proposed trade ; and

instructions for the client's browser to transmit a trade request to an investment advice server upon submission of a trade request by a user.

Claims 47-48 (cancelled).

49. The computer data signal of claim 46, wherein the carrier wave further comprises portfolio recommendations for the user's investment portfolio;

instructions for the client's browser to display a portfolio recommendations display, the portfolio recommendations based at least in part on the portfolio information and the benchmark information.

Claim 50 (cancelled).

51. A system for providing investment advice, the system comprising:

a database identifying a plurality of securities portfolios and maintaining portfolio information associated with the security portfolios; and

a server computer operably coupled to the database and accessible via client computers to a plurality of clients; the server computer including:

a trade advisor component operative to receive, from the database, portfolio information for a securities portfolio of a client, the trade advisor component proposing securities transactions based on a combined ranking of a return ranking and a

risk ranking for each tradable security available to the client, the return ranking being based on an aggregation of normalized securities rankings from one or more analysts for each tradable security, the risk ranking being based on a normalized marginal contribution to risk of each security to the portfolio, the normalized marginal contribution to risk having been scaled by a factor reflecting a client's risk aversion.

52. The system of claim 51, wherein the portfolio information maintained by the database includes tax lot information for the securities included in the portfolios identified by the database.

53. The system of claim 52, wherein the combined ranking is further based on a tax ranking for securities in the portfolio, the tax ranking for each security being based on a normalized and scaled marginal tax gain or marginal tax loss resulting from the sale of the security as a percentage of the current price of the security.

54. The system of claim 51, wherein the server further includes

graphical user interface generation means for providing a user interface, the user interface including a client proposed transaction input control whereby a client can input a proposed transaction for a portfolio identified by the investment advice service.

Claim 55 (cancelled).

56. The system of claim 54, wherein the trade advisor component is operative to propose alternative transactions to the proposed transaction of the client based at least in part on the combined ranking for the proposed transaction.

57. A system for providing trading advice for a portfolio of securities, the system comprising:

a ranker component operative to receive a request to rank relevant securities;

a portfolio component in communication with the ranker component and operative to receive a get benchmark request and a get tax lots request from the ranker component;

a security analyst component in communication with the ranker component and operative to receive a get security rankings request from the ranker component,

the ranker component operative: to provide risk rankings of relevant securities using portfolio minus benchmark weights in determining a marginal contribution to risk associated with a relevant security; to determine tax rankings based in part on tax lot data; and to determine combined rankings of relevant securities as a weighted sum of risk rankings, security forecast rankings and tax rankings, the ranker component determining a marginal contribution to risk by:

adding a specified weighting to the portfolio;

determining a revised contribution to factor risk and residual risk;

subtracting original values; and

dividing by a change in weight; and

an asset allocator in communication with the ranker component, the asset allocator operative to receive combined rankings for relevant securities from the ranker component and to create a trade list based at least in part on the combined rankings.

58. A system for providing trading advice for a portfolio of securities, the system comprising:

a ranker component operative to receive a request to rank relevant securities;

a portfolio component in communication with the ranker component and operative to receive a get benchmark request from the ranker component; and

a security analyst component in communication with the ranker component and operative to receive a get security rankings request from the ranker component,

the ranker component operative to determine risk rankings of relevant securities using portfolio minus benchmark weights in determining combined rankings of relevant securities based at least in part on risk rankings and on security forecast rankings.

59. The system of claim 58 wherein the portfolio component is operative to receive a get tax lots request from the ranker component, wherein the ranker component is operative to determine tax rankings based in part on tax lot data, and wherein the ranker component is operative to determine the combined rankings of relevant securities as a weighted sum of the risk rankings, the security forecast rankings and the tax rankings.

60. The system of claim 58 wherein the system further comprises:

an asset allocator in communication with the ranker component, the asset allocator operative to receive combined rankings for relevant securities from the ranker component and to create a trade list based at least in part on the combined rankings.

61. The system of claim 58 wherein the ranker component is operative to determine a risk ranking for a relevant security by determining a marginal contribution to risk associated with the relevant security and wherein the ranker component is operative to determine the combined rankings as a weighted sum of the risk rankings and the security forecast rankings.

62. The system of claim 61 wherein the ranker component is operative to determine a risk ranking for a relevant security by adding a specified weighting to the portfolio, determining a revised contribution to factor risk and residual risk, subtracting original values, and dividing by a change in weight.

63. The system of claim 62 wherein the ranker component is operative to determine a risk ranking for a relevant security by: for the relevant security adding about a 0.1% weighting to the portfolio.

64. The system of claim 63 wherein the relevant securities comprise a universe of securities including securities held in the portfolio and securities not held in the portfolio.

65. The system of claim 60 wherein the asset allocator is operative to receive one of a raise cash value, a spend cash value and a maximum turnover and to pass a rank portfolio request to the ranker component.

66. A method for providing trading advice for a portfolio of securities, the method comprising

    receiving portfolio information;

    using a ranker component to pass a get benchmark request to a portfolio component;

    normalizing security forecasts from at least one advisor and translating the normalized forecasts into security forecast rankings;

    using a ranker component to pass a get security rankings request to a security analyst component;

    determining risk rankings for relevant securities using portfolio minus benchmark weights;

    determining combined rankings for proposed trades of relevant securities based at least in part on risk rankings and on security forecast rankings; and

    generating an order list based on the combined rankings.

67. The method of claim 66 wherein the method further comprises:

    using the ranker component to pass a get tax lots request to the portfolio component; and

    determining tax rankings based at least in part on tax lot data; and

    wherein determining combined rankings comprises determining combined rankings as a weighted sum of the risk rankings, the security forecast rankings and the tax rankings.

68. The method of claim 66 wherein determining risk rankings comprises determining a risk ranking for a relevant security by determining a marginal contribution to risk associated with the relevant security and wherein determining the combined rankings comprises determining the combined rankings as a weighted sum of the risk rankings and the security forecast rankings.

69. The method of claim 66 wherein determining a risk ranking for a relevant security comprises:

determining a risk ranking for the relevant security by: adding a specified weighting to the portfolio; determining a revised contribution to factor risk and residual risk; subtracting original values; and dividing by a change in weight.

70. The method of claim 69 wherein determining a risk ranking comprises determining a risk ranking for a relevant security by:

for the relevant security adding about a 0.1% weighting to the portfolio.

71. The method of claim 66 wherein the relevant securities comprise a universe of securities including securities held in the portfolio and securities not held in the portfolio.

72. The method of claim 66 wherein normalizing security rankings comprises collecting security rankings for a security from a plurality of security analysts, aggregating the security rankings for the security onto a uniform ranking scale and determining a consensus forecast from a plurality of security analysts.

Claim 73 (canceled)

Claim 74. A method for assisting a user to manage a plurality of portfolios, the method comprising:

displaying a rebalance accounts display for providing information about a plurality of accounts;

allowing a user to select one or more accounts for rebalancing;

allowing a user to select a trading template to apply to the selected accounts wherein at least one of the trades in the trade template is generated by a method including:

using a ranker component to pass a get benchmark request to a portfolio component;

using a ranker component to pass a get security rankings request to a security analyst component;

determining risk rankings for relevant securities using portfolio minus benchmark weights;

determining combined rankings for proposed trades of relevant securities based at least in part on risk rankings and on security forecast rankings; and

generating an order list based on the combined rankings; and

applying the trading template to the selected accounts.

75. The method of claim 74, wherein the method further comprises:

displaying a my accounts display including:

an account list display which lists information about accounts that the user manages;

a stock alerts display which lists information about stocks of note; and

a risk alerts display which provides information about accounts with a high-risk rating.

76. The method of claim 75, wherein the method further comprises:

displaying a trade execution results page including a save trade template display that allows a user to name and save a set of trades as a trade template for rebalancing other accounts.

77. The method of claim 74, wherein displaying a rebalance accounts display for providing information about a plurality of accounts includes current risk and stock rating and projected risk and stock rating.

Appendix III – Copy of Applicants January 31, 2005 Amendment B and Response

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Mark Hoffman et al.
Serial No.:   09/696,762
5   Filed: October 25, 2000
For: INVESTMENT ADVICE SYSTEMS AND METHODS
Examiner: Nga B. Nguyen
Art Unit: 3628

10

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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AMENDMENT B AND RESPONSE TO OFFICE ACTION

MAILED AUGUST 12, 2004

20 **A.   Introductory Comments**

This document is in response to the Office Action mailed August 12, 2004.
Applicants enclose herewith a Petition for a three-month extension of time pursuant to 37
C.F.R. §1.136(a) and a check in the amount of $1,020.00 as required by 37 C.F.R.
§1.17(a)(3). With this extension of time, the present Amendment and Response is due on
25 February 12, 2005. Applicants believe that no additional fees are due with this filing.
However, the Commissioner is hereby authorized to charge any fees that may be due, or
credit any overpayment, to Deposit Account No. 50-0311, Attorney Ref. No. 24309-501,
Customer Number 30263. The amendments to the specification section begins on page 2,
the amendments to the claims section begins on page 3 and the remarks section begins on
30 page 11.

Please amend this application as follows:

A.   Amendments to the Specification

Please replace the last paragraph on page 9 that carries over to the top of page 10 with the following:

Thus, the system provides the user advice on a large number of stocks, which she

5   can apply in managing her portfolio and in evaluating her list of potential purchases. Stocks highly recommended by analysts generally outperform the market over the long term. Similarly stocks that are unfavorably recommended by analysts generally under perform the market over the long term. Brad Barber, Reuvan Lehavy, Maureen McNichols, and Brett Trueman, in "Can Investors Profit from the Prophets? Security Analyst

10   Recommendations and Stock Returns", ~~http://www.gsm.ucdavis.edu/~bmbarber/Prophets_9-99.pdf incorporated herein by reference in its entirety,~~ indicate that strategies of purchasing the stocks with the most favorable consensus (combined) recommendations or selling short the stocks with the least favorable recommendations produced an annual abnormal gross return of more than about

15   four percent. An embodiment of a system according to the invention presents valuable advice to an individual investor who is preparing to make a transaction by providing a consensus of selected advisors or, alternatively, by providing a consensus of all available advisors.

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B. **Amendments to the Claims:**

Please amend claims 11, 17, 46, 51, 63, 66, 70, and 72 as follows.

5   Claims 1-10 (cancelled).

(Currently amended) 11.   A computer-implemented method for providing investment advice to a client over a computer network, the method comprising:

providing a database maintaining portfolio information for a plurality of securities

10   portfolios;

providing a server computer operably coupled to the database and accessible via client computers to a plurality of clients, the server computer including:

an asset allocator operative to receive <u>one of a spend cash request, a raise cash request, a rebalance request, and</u> a <u>re-rank</u> request;

15   a ranker component in communication with the asset allocator;

a security analyst component in communication with the asset allocator; and

a portfolio component in communication with the asset allocator; and

managing a securities portfolio identified by the database for a client by:

receiving portfolio information;

20   using a ranker component to pass a get benchmark request to the portfolio component;

<u>normalizing security forecasts from at least one advisor and translating the normalized forecasts into security forecast rankings;</u>

using a ranker component to pass a get security rankings request to a

25   security analyst component;

determining risk rankings for relevant securities using portfolio minus benchmark weights;

determining combined rankings for <u>proposed trades of</u> relevant securities based at least in part on risk rankings and on security forecast rankings; and

30   generating an order list based on the combined rankings.

Claims 12-14 (cancelled).

15. (original) The computer-implemented method of claim 11, wherein the portfolio

35   information maintained by the database includes tax lot information.

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16. (Previously amended) The computer-implemented method of claim 15, wherein managing a securities portfolio includes:

requesting tax lot information from the database for the portfolio, and

proposing securities transactions to the client based at least in part on the tax lot

5   information for the securities portfolio.

17. (Currently amended) The computer-implemented method of claim 16, wherein providing a server comprises:

providing a server including a broker connection aggregator; and wherein managing

10 a securities portfolio further comprises:

invoking the broker connection aggregator to ̶provide a connection to a plurality of

brokers over a computer network and to allow a client to execute securities transactions,

through the broker connection, for securities portfolios identified by the database.

15 18. (Previously amended) The computer-implemented method of claim 11, wherein providing a server further comprises

providing a server including a portfolio tracker; and wherein managing a securities portfolio further comprises

invoking the portfolio tracker to receive portfolio information for a securities portfolio from

20 a client and to store the portfolio information for the securities portfolio in the database.

Claims 19-45 (cancelled).

46. (Currently amended) A computer data signal embodied in a carrier wave, the computer

25 data signal being transferred between an investment advice server and a user's client

computer, the computer data signal comprising:

portfolio information associated with a user's investment portfolio;

benchmark information associated with the user's investment portfolio;

risk ranking information;

30 stock rating information; and

instructions for a client's browser to display:

a trade station display including a mechanism operative to receive at least

one trade request;

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a holdings display operative to depict a relationship between the portfolio information and the benchmark information;

an analysis display including a current <u>risk ranking and stock rating</u> and a projected risk ranking, and stock rating, <u>wherein the analysis display allows a client to compare a current portfolio's average to a projected portfolio's average after a proposed trade</u>; and

<u>_____</u>instructions for the client's browser to transmit <u>a trade request</u> to an investment advice server ~~the trade request~~ upon submission of a trade request by a user.

Claims 47-48 (cancelled).

49. (Previously amended) The computer data signal of claim 46, wherein the carrier wave further comprises

portfolio recommendations for the user's investment portfolio;

instructions for the client's browser to display a portfolio recommendations display, the portfolio recommendations based at least in part on the portfolio information and the benchmark information.

Claim 50 (cancelled).

51. (Currently amended) A system for providing investment advice, the system comprising:

a database identifying a plurality of securities portfolios and maintaining portfolio information associated with the security portfolios; and

a server computer operably coupled to the database and accessible via client computers to a plurality of clients; the server computer including:

a trade advisor component operative to receive, from the database, portfolio information for a securities portfolio of ~~the~~-<u>a</u> client, the trade advisor component proposing securities transactions based on a combined ranking of a return ranking and a risk ranking for each tradable security available to the client, the return ranking being based on an aggregation of normalized securities rankings from one or more analysts for each tradable security, the risk ranking being based on a normalized marginal contribution to risk of each

security to the portfolio, the normalized marginal contribution to risk having been scaled by a factor reflecting a client's risk aversion.

52. (Original) The system of claim 51, wherein the portfolio information maintained by the database includes tax lot information for the securities included in the portfolios identified by the database.

53. (Previously amended) The system of claim 52, wherein the combined ranking is further based on a tax ranking for securities in the portfolio, the tax ranking for each security being based on a normalized and scaled marginal tax gain or marginal tax loss resulting from the sale of the security as a percentage of the current price of the security.

54. (Previously amended) The system of claim 51, wherein the server further includes graphical user interface generation means for providing a user interface, the user interface including a client proposed transaction input control whereby a client can input a proposed transaction for a portfolio identified by the investment advice service.

Claim 55 (cancelled).

56. (Previously amended) The system of claim 54, wherein the trade advisor component is operative to propose alternative transactions to the proposed transaction of the client based at least in part on the combined ranking for the proposed transaction.

57. (Previously added) A system for providing trading advice for a portfolio of securities, the system comprising:

a ranker component operative to receive a request to rank relevant securities;

a portfolio component in communication with the ranker component and operative to receive a get benchmark request and a get tax lots request from the ranker component;

a security analyst component in communication with the ranker component and operative to receive a get security rankings request from the ranker component,

the ranker component operative: to provide risk rankings of relevant securities using portfolio minus benchmark weights in determining a marginal contribution to risk associated with a relevant security; to determine tax rankings based in part on tax lot data; and to determine combined rankings of relevant securities as a weighted sum of

risk rankings, security forecast rankings and tax rankings, the ranker component
determining a marginal contribution to risk by:
  adding a specified weighting to the portfolio;
  determining a revised contribution to factor risk and residual risk;
5 subtracting original values; and
  dividing by a change in weight; and
an asset allocator in communication with the ranker component, the asset allocator
  operative to receive combined rankings for relevant securities from the ranker
  component and to create a trade list based at least in part on the combined rankings.
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58. (Currently amended) A system for providing trading advice for a portfolio of
securities, the system comprising:
  a ranker component operative to receive a request to rank relevant securities;
  a portfolio component in communication with the ranker component and operative to
15   receive a get benchmark request from the ranker component; and
  a security analyst component in communication with the ranker component and
    operative to receive a get security rankings request from the ranker component,
  the ranker component operative to determine risk rankings of relevant securities using
    portfolio minus benchmark weights in determining the combined rankings of relevant
20   securities based at least in part on risk rankings and on security forecast rankings.

59. (Previously added) The system of claim 58 wherein the portfolio component is
operative to receive a get tax lots request from the ranker component, wherein the ranker
component is operative to determine tax rankings based in part on tax lot data, and wherein
25 the ranker component is operative to determine the combined rankings of relevant securities
as a weighted sum of the risk rankings, the security forecast rankings and the tax rankings.

60. (Previously added) The system of claim 58 wherein the system further comprises:
  an asset allocator in communication with the ranker component, the asset allocator
30   operative to receive combined rankings for relevant securities from the ranker
    component and to create a trade list based at least in part on the combined rankings.

61. (Previously added) The system of claim 58 wherein the ranker component is operative to determine a risk ranking for a relevant security by determining a marginal contribution to risk associated with the relevant security and wherein the ranker component is operative to determine the combined rankings as a weighted sum of the risk rankings and the security

5   forecast rankings.

62. (Previously added) The system of claim 61 wherein the ranker component is operative to determine a risk ranking for a relevant security by adding a specified weighting to the portfolio, determining a revised contribution to factor risk and residual risk, subtracting

10 original values, and dividing by a change in weight.

63. (Currently amended) The system of claim 62 wherein the ranker component is operative to determine a risk ranking for a relevant security by: for the relevant security adding about a 0.1% weighting to the portfolio.

· 15

64. (Previously added) The system of claim 63 wherein the relevant securities comprise a universe of securities including securities held in the portfolio and securities not held in the portfolio.

20 65. (Previously added) The system of claim 60 wherein the asset allocator is operative to receive one of a raise cash value, a spend cash value and a maximum turnover and to pass a rank portfolio request to the ranker component.

66. (Currently amended) A method for providing trading advice for a portfolio of

25 securities, the method comprising

    receiving portfolio information;

    using a ranker component to pass a get benchmark request to a portfolio component;

    normalizing security forecasts from at least one advisor and translating the normalized

        forecasts into security forecast rankings;

30   using a ranker component to pass a get security rankings request to a security analyst

        component;

    determining risk rankings for relevant securities using portfolio minus benchmark

        weights;

determining combined rankings for <u>proposed trades of</u> relevant securities based at least

in part on risk rankings and on security forecast rankings; and

generating an order list based on the combined rankings.

5   67. (Previously added) The method of claim 66 wherein the method further comprises:

using the ranker component to pass a get tax lots request to the portfolio component;

and

determining tax rankings based at least in part on tax lot data; and

wherein determining combined rankings comprises determining combined rankings as a

10   weighted sum of the risk rankings, the security forecast rankings and the tax rankings.

68. (Previously added) The method of claim 66 wherein determining risk rankings

comprises determining a risk ranking for a relevant security by determining a marginal

contribution to risk associated with the relevant security and wherein determining the

15   combined rankings comprises determining the combined rankings as a weighted sum of the

risk rankings and the security forecast rankings.

69. (Previously added) The method of claim 66 wherein determining a risk ranking for a

relevant security comprises:

20   determining a risk ranking for the relevant security by: adding a specified weighting to

the portfolio; determining a revised contribution to factor risk and residual risk;

subtracting original values; and dividing by a change in weight.

70. (Currently amended) The method of claim 69 wherein determining a risk ranking

25   comprises determining a risk ranking for a relevant security by<u>:</u>

<u>for the relevant security</u> adding about a 0.1% weighting to the portfolio.

71. (Previously added) The method of claim 66 wherein the relevant securities comprise a

universe of securities including securities held in the portfolio and securities not held in the

30   portfolio.

72. (Currently amended) The method of claim 66 wherein ~~obtaining~~ <u>normalizing</u> security

rankings comprises <u>collecting security rankings for a security from a plurality of security</u>

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analysts, aggregating the security rankings for the security onto a uniform ranking scale and
determining a consensus forecast from a plurality of security analysts.

Claim 73 (canceled)

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Please add the following new claims:

Claim 74. (New) A method for assisting a user to manage a plurality of portfolios, the
method comprising:

10   displaying a rebalance accounts display for providing information about a plurality of
            accounts;
        allowing a user to select one or more accounts for rebalancing;
        allowing a user to select a trading template to apply to the selected accounts wherein at
            least one of the trades in the trade template is generated by a method including:

15   using a ranker component to pass a get benchmark request to a portfolio component;
            using a ranker component to pass a get security rankings request to a security
                analyst component;
            determining risk rankings for relevant securities using portfolio minus benchmark
                weights;
20   determining combined rankings for proposed trades of relevant securities based at
                least in part on risk rankings and on security forecast rankings; and
            generating an order list based on the combined rankings; and
        applying the trading template to the selected accounts.

25 75. (New) The method of claim 74, wherein the method further comprises:
        displaying a my accounts display including:
            an account list display which lists information about accounts that the user
                manages;
            a stock alerts display which lists information about stocks of note; and
30   a risk alerts display which provides information about accounts with a high-risk
                rating.

76. (New) The method of claim 75, wherein the method further comprises:
        displaying a trade execution results page including a save trade template display that
35   allows a user to name and save a set of trades as a trade template for rebalancing other
            accounts.

77. (New) The method of claim 74, wherein displaying a rebalance accounts display for providing information about a plurality of accounts includes current risk and stock rating and projected risk and stock rating.

5

B.   Remarks

In response to the Office Action mailed August 12, 2004, the Applicants respectfully request reconsideration of the application in view of the amendments above and the following remarks.

5   Upon entry of the amendments above, claims 11, 15-18, 46, 49, 51-54 and 56-77, including independent claims 11, 46, 51, 57, 58, 66, and 74 are pending.

In the amendments above, Applicants amend claims 11, 17, 46, 51, 63, 66, 70, and 72 to clarify the patentability of the invention and/or to correct typographical errors or minor grammatical errors. No new matter has been added. Applicants amend claim 11 to
10   specify that: (1) the asset allocator is operative to receive <u>one of a spend cash request, a raise cash request, a rebalance request, and</u> a <u>re-rank</u> request (as taught in the specification between page 27, line 7 and page 28, line 3); and (2) managing a securities portfolio further includes <u>normalizing security forecasts from at least one advisor and translating the normalized forecasts into security forecast rankings</u> (as taught in the specification on page
15   37, between lines 7 and 25 and in claim 51) and determining combined rankings for <u>proposed trades of</u> relevant securities (as taught between page 35, line 23 and page 36, line 19 and on page 38, between lines 12 and 22).

Applicants amend claims 17 and 51 to correct typographical errors or minor grammatical errors. Applicants amend claim 46 to correct minor grammatical errors and to
20   specify that the analysis display includes a current <u>risk ranking and stock rating</u> and a projected risk ranking and stock rating, <u>wherein the analysis display allows a client to compare a current portfolio's average to a projected portfolio's average after a proposed trade</u> (as taught on page 50, between lines 10 and 15 and in FIG. 12).

Applicants amend claims 63 and 70 to specify that determining a risk ranking for a
25   relevant security includes: <u>for the relevant security</u> adding about a 0.1% weighting to the portfolio (as taught on page 41, line 11). Applicants amend claim 66 to specify that the method includes: <u>normalizing security forecasts from at least one advisor and translating the normalized forecasts into security forecast rankings</u> (as taught in the specification on · page 37, between lines 7 and 25 and in claim 51); and determining combined rankings for
30   <u>proposed trades of</u> relevant securities (as taught between page 35, line 23 and page 36, line 19 and on page 38, between lines 12 and 22).

Applicants amend claim 72 to specify that normalizing security rankings includes collecting security rankings for a security from a plurality of security analysts, aggregating the security rankings for the security onto a uniform ranking scale (as taught on page 5, between lines 31-34).

5   New claims 74 to 77 have been added. Support for new claim 74 can be found, among other places, in FIGS. 3A, 3B, 9, 14 and 16 and in the associated text (e.g., between page 47, line 3 and page 51, line 22). Support for new claim 75 can be found in FIG. 10 and on page 48, between lines 1 and 20. Support for new claim 76 can be found in FIG. 14 and on page 51, between lines 8 and 12. Support for new claim 77 can be found on page 51

10   between lines 18-20. No new matter has been added.

Election/Restriction

Claims 31, 34, 35, 37-39, and 73 have been canceled as drawn to non-elected inventions pursuant to the Office Action mailed March 29, 2004 and Applicants' election of Group I (Claims 11, 15-18, 46, 49, 51-54, 56-72) in their Response mailed April 26, 2004.

15   Applicants reserve the right to pursue the subject matter of these claims in a later filed application.

Specification

The disclosure was objected to because it contained an embedded hyperlink and/or other form of browser-executable code. Applicants have deleted the embedded hyperlink

20   and/or other form of browser-executable code from the specification. Thus, Applicants respectfully assert that this objection has been traversed.

Nature of the Invention

With reference to FIG. 12, the invention relates to systems and methods for providing investment or trading advice in light of current holdings in a portfolio. For

25   example, the advice can include recommendation 252 regarding which securities to buy or sell and how much of the securities to buy or sell in light of current holdings in a portfolio.

The specification, between page 34, line 14 and page 43, line 24 and with reference to FIG. 5, describes *generating an order list or trade list (e.g., a buy/sell list) by computing combined ranks* for relevant securities, the *combined ranks being based at least in part on*

30   *risk rankings and on security forecast rankings,* i.e., a forecast return ranking. The invention derives security forecast ranking from information provided by security analyst(s). See claims 11, 51, 57, 58, and 66.

In one embodiment, the combined ranking is a weighted sum of a risk ranking, a security forecast ranking/return ranking and a tax ranking. See claims 57, 62, 67 and 68. In one embodiment, the return ranking is based on an aggregation of normalized securities rankings from a plurality of security analysts. See claim 72. Incorporating internally consistent forecast return rankings for a large universe of stocks allows a user of the present invention to take into account the views of selected advisors, either individually or in aggregate, regarding future performance of specified securities.

The computation of the combined ranks can include *determining marginal risk for discrete-sized, i.e., quantum, changes* in relevant holdings (page 41, lines 9-24). In one embodiment *determining a marginal contribution to risk includes: adding a specified weighting to the portfolio; determining a revised contribution to factor risk and residual risk; subtracting original values; and dividing by a change in weight.* See claims 51, 57, 61, 62, 68, and 69. Because trades actually occur in discrete sizes, a portfolio manager or investor, using the methods and systems of the claimed invention, receives more accurate feedback, e.g., on the impact on a portfolio of a proposed trade.

The computation of the combined ranks can include the determination of factor ranks, residual ranks and can further include the determination of tax ranks. Each of the individual ranks can be scaled to facilitate their use in deriving the combined ranks. The computation of factor ranks can be based on active weights, i.e., variations from positions taken in a selected benchmark or model portfolio (See for example. page 40, lines 7-12). Because a user is typically interested in performance of the user's portfolio versus a benchmark portfolio, using active weights (as opposed to comparison of the user's portfolio versus a pure cash position) provides the user with more accurate feedback.

Embodiments of the invention allow a user to interactively propose potential trades and examine the impact of the trades on portfolio metrics such as a risk metric and a return metric, i.e., alpha. Similarly, embodiments of the invention provide recommendations for trades and illustrate the impact of selected recommended trades on portfolio metrics such as a risk metric and a return metric, i.e., alpha. These metrics are shown in the Analysis section 256 of the user interface shown in FIG. 12. See claims 47, 51, 54, and 56.

Yet other embodiments of the invention provide methods for managing a plurality of portfolios. With reference to FIG. 16, the methods include: displaying a rebalance accounts display for providing information about a plurality of accounts; allowing a user to

select one or more accounts for rebalancing; allowing a user to select a trading template to apply to the selected accounts; and applying the trading template to the selected accounts.

FIGS. 2A, 3A, 5, and 12 and the text associated with these figures relate to the aspects of the invention described above.

5

Rejection of claims 11, 15-18, 46, 49, 51-54, 56, 58, 60, 65, 66, 69, 71, and 72 under 35 USC 102(b)

Claims 11, 15-18, 46, 49, 51-54, 56, 58, 60, 65, 66, 69, 71, and 72 stand rejected under 35 USC 102(b) as unpatentable over U.S. Patent No. 6,601,044 issued to Wallman

10 (hereinafter "Wallman"). Reconsideration and withdrawal of this anticipation rejection is deemed in order and requested.

Amended Independent Claim 11

As defined by amended claim 11, the invention provides a computer-implemented method for providing investment advice to a client over a computer network. The method

15 includes: providing a database maintaining portfolio information for a plurality of securities portfolios; and providing a server computer operably coupled to the database and accessible via client computers to a plurality of clients.

The server computer includes: an asset allocator operative to receive one of a spend cash request, a raise cash request, a rebalance request, and a re-rank request; a ranker

20 component in communication with the asset allocator; a security analyst component in communication with the asset allocator; and a portfolio component in communication with the asset allocator. The method of amended claim 11 further includes managing a securities portfolio identified by the database for a client by: receiving portfolio information; using the ranker component to pass a get benchmark request to the portfolio component;

25 *normalizing security forecasts from at least one advisor and translating the normalized forecasts into security forecast rankings;* using the ranker component to pass a get security rankings request to a security analyst component; determining risk rankings for relevant securities using portfolio minus benchmark weights; *determining combined rankings proposed trades of relevant securities based at least in part on risk rankings and on*

30 *security forecast rankings;* and *generating an order list based on the combined rankings.*

Contrary to the assertion in the August 12, 2004 Office Action that claim 11 is anticipated by the Wallman patent, amended claim 11 contains recitations that are

completely absent from the Wallman patent. For example, the Wallman patent does not disclose the following amended claim 11 recitations:

1) *normalizing security forecasts from at least one advisor and translating the normalized forecasts into security forecast rankings; (hereinafter the "normalizing security forecasts" recitation)*

2) *determining combined rankings for proposed trades of relevant securities based at least in part on risk rankings and on security forecast rankings; (hereinafter the "determining combined rankings" recitation) and*

3) *generating an order list based on the combined rankings (hereinafter the "generating an order list" recitation).*

THE "NORMALIZING SECURITY FORECASTS" RECITATION

Taking the above-quoted recitations in turn, the "normalizing security forecasts" recitation is completely absent from the Wallman patent. Wallman does not teach or even discuss normalizing security forecasts from at least one advisor or translating the normalized forecasts into rankings. Page 4 of the August 12, 2004 Office Action appears to provide the most relevant comments regarding the above-quoted recitation. Page 4 of the Office Action states in relevant part:

> using the ranker component to pass a get security rankings request to a security analyst component (column 25, line 18-column 26, line 27; the system provides the list of stocks that match the investor's criterion);

Thus, page 4 of the Office Action merely quotes the "pass a get security rankings request" recitation from claim 11, refers to column 25, line 18-column 26, line 27 of the Wallman patent, and appears to paraphrase the disclosure of the cited portion of Wallman as teaching that "the system provides the list of stocks that match the investor's criterion."

Providing a list of stocks that match an investor's criterion (such as the list shown in FIGS. 5 or the list shown in FIG. 13 of Wallman) does not teach "normalizing security forecasts from different advisors and translating the normalized forecasts into security forecast rankings" (as taught between page 37, line 14 and page 38, line 12 of the present application) because, among other reasons, Wallman appears to merely disclose a listing of stocks where the stock is either included in, or excluded from, a portfolio depending on a selection criteria, such as annual revenue of the company issuing the stock. The listed stock may have an associated differential return relative to some standard such as the S&P 500 as

shown in FIG. 5 of Wallman. However, that differential return appears to be derived solely from historical returns (see Fig. 5's characterization of the differential return as "last 12 months").

5   In contrast, the invention of amended claim 11 normalizes forecasts from at least one advisor, and translates the normalized forecasts into security rankings. More specifically, as taught between page 37, line 14 and page 38, line 12 of the present application, different advisors may use different scales for their forecasts. Since one embodiment of the present invention compares and possibly combines forecasts from different advisors, this embodiment normalizes the forecasts. Thus, in one embodiment, the

10   system normalizes each set of forecasts such that they have an average value of zero and a standard deviation of one. The system 80 (see FIG. 1) determines a minimum (-2) and maximum (+2) standardized value. The system 80 then translates the normalized forecast into a ranking centered around the average of the worst and best rank. In one embodiment, the system defines these forecast rankings as

15

Forecast ranking=(worst rank+best rank)/2+Normalized forecast*(best rank-worst rank)
/(max std value-min std value)

    Normalizing security forecasts and translating the normalized forecasts into

20   rankings advantageously allows an investor to systematically take advisor/analyst forecasts into account when considering a particular transaction or set of transactions. Thus, Wallman does not teach the "normalizing security forecasts" recitation as claimed in amended claim 11.

THE "DETERMINING COMBINED RANKINGS" RECITATION

25   With respect to the second recitation, the "determining combined rankings" recitation, page 4 of the August 12, 2004 Office Action merely states the following as support for the position that Wallman anticipates this recitation:

> determining combined rankings for relevant securities based at least in part on risk rankings and on security forecast rankings; (column 37, line
30   58-column 38, line 26; risk ranking and differential return ranking; column 16, lines 37-55; column 30, lines 32-60; column 40, lines 40-50; security forecast ranking);

    Page 4 of the Office Action quotes the "determining combined rankings" recitation from

35   claim 11, refers to column 37, line 58-column 38, line 26 of the Wallman patent, and

appears to paraphrase the disclosure of the cited portion of Wallman as teaching risk ranking and differential return ranking. Column 37, line 58-column 38, line 26 of the Wallman patent states in relevant part (with reference to FIG. 13):

> *Screen B also shows the calculation of the risk (beta) 55b-55h and expected differential return levels 56b-56h for the stocks that are used to calculate the portfolio risk levels 53a and the expected differential returns 54a of the portfolio.* It would also be made clear that a principal benefit of the computer-based system of the present invention and the concept of using a portfolio for investing instead of individual stocks is the notion that the riskiness in any one stock held in a portfolio may be different from the riskiness of that stock held by itself... Consequently, *investors will be cautioned to focus on portfolio risk/returns, not individual stock risk/return.* Again, then, *there is a great advantage to investors as described above from being able to adjust their whole portfolio characteristics just through moving a pointer* (51a, 52a in Screen A up or down...), *as opposed to having to consider and understand the effects on the portfolio from modifying individual stock positions.* Thus less than expert investors, for example, can have their portfolio adjusted automatically by having the system re-weight or add cash, or leverage, when the investor adjusts the pointers, dials or colors. ... [Emphasis added.]

Thus, with reference to FIG. 13, Wallman does appear to discuss risk (beta) 55b-55h and expected differential return levels 56b-56h for the stocks that are used to calculate the portfolio risk levels 53a and the expected differential returns 54a of the portfolio. *However, no mention is made as to how Wallman determines the expected differential return levels. FIG 5 appears to indicate that differential return calculations are based on returns for the past 12 months.*

Moreover, the cited section, i.e., column 37, line 58-column 38, line 26, in particular, or *Wallman* in general, *does not teach or even discuss determining combined rankings for proposed trades as recited in claim 11.* In fact, Wallman does not appear to use the terms "rank" or "ranking" at all. Indeed, page 12 of the August 12, 2004 Office Action appears to acknowledge that at least one type of combined rankings is not disclosed in Wallman. *Page 12 of the August 12, 2004 Office Action states that "Wallman does not disclose determine [sic] combined rankings of relevant securities as a weighted sum of risk rankings, security forecast rankings and tax rankings [Emphasis added]."* Fig. 5 illustrates one embodiment of the determination (step 5 in FIG. 5) of combined rankings according to the invention.

Again with respect to the second recitation (i.e., the "determining combined rankings" recitation), the August 12, 2004 Office Action continues on page 4 by referring to column 16, lines 37-55; column 30, lines 32-60; and column 40, lines 40-50 of the Wallman

patent and appears to paraphrase the disclosure of the cited portions of the Wallman patent as teaching security forecast ranking. A brief discussion of each of the cited sections now follows. Column 16, lines 37-55 of the Wallman patent states:

Once an affinity group is identified, the system can gather statistics for the investor noting, again hypothetically, that as a group, patent attorneys invest in high technology stocks. The system could then list the ten most frequently traded high technology stocks in which patent attorneys are interested. Similarly, *the system can gather statistics for the investor on what level of risk and return generally characterizes the current portfolio investing by economists, and then create a portfolio that matches those portfolio characteristics*.

If an investor has a particular interest in a more specific affinity group, the investor might query the system of the present invention to provide all of the securities in which patent attorneys who specialize in mechanical engineering are investing. Again general groupings of securities could be presented or the top ten securities being traded by mechanical patent attorneys can be listed, or the portfolio characteristics can be selected and matched. [Emphasis added.]

The cited section quoted above appears to discuss a system that can gather statistics for an investor on what level of risk and return generally characterizes current portfolio investing by an affinity group, and then can create a portfolio that matches those portfolio characteristics. *The August 12, 2004 Office Action does not point to a teaching in Wallman of a combined ranking of any kind. This cited discussion is wholly unrelated to the claim 11 recitation of determining combined rankings for proposed trades* of relevant securities *based* at least in part *on risk rankings and on security forecast rankings*. As claimed, *the security forecast rankings are translated from normalized security forecasts and the security forecasts are received from advisor(s)*.

Column 30, lines 32-60 of the Wallman patent states in relevant part:

Referring to FIG. 4B, alternatively, or additionally, the computer-based system of the present invention also *allows the investor to be presented with suggested portfolios created through other means--such as a recommended portfolio that reflects a specified strategy, such as* the ten under performing stocks from the Dow Jones Industrial Index, or *from a selected analyst*, ... As shown in FIG. 4B, the investor can select from a category of portfolios 71-76, under each of which the investor can then select a particular type of portfolio within that category. For example, the investor can select an average portfolio for people with the same number of children as the investor by selecting "Similar Demographics" 74 and then "Number of Children" 77.

As further examples, a noted analyst may state that her ideal portfolio would be the following fifty stocks in the following proportions, or a magazine may

give its picks for the "ideal" portfolio, ... In any of these types of cases, Screen 5 would make available the list of companies and the suggested allocations (or if no allocation is provided by the entity creating the list, then in accordance with appropriate diversification requirements, risk and other preferences of the investor, as provided previously). [Emphasis added.]

The cited section quoted above appears to discuss a system that can present an investor with a recommended portfolio that reflects a specified strategy such as from a selected analyst. *Presenting a portfolio recommended by a selected analyst does not teach the claim 11 recitation of determining combined rankings for proposed trades of relevant securities based at least in part on risk rankings and on security forecast rankings because, among other reasons, merely presenting a portfolio does not make use of the analyst's predictions/forecasts regarding individual securities, whether the securities are included in, or excluded from, the analyst's recommended portfolio.* Again, as claimed, the security forecast rankings are translated from normalized security forecasts received from at least one advisor.

Column 40, lines 40-50 of the Wallman patent states:

As noted, *there will also be pre-packaged or suggested portfolios.* The present invention will keep track of those portfolios. For example, the Washingtonian picks can be displayed for an investor who can then be given the option to purchase a basket of securities that are the same as the expert's picks that have been published. The Dow 500 and the Fortune 500 top stocks may also be tracked by the present invention with the opportunity given to invest in the same top stocks as listed in the index or the magazine. Again, *performance data on the stocks and portfolios that are potential candidates for investment can be generated to further inform the investor.* [Emphasis added.]

The cited section quoted above appears to note that there will be suggested portfolios and that performance data on the stocks and portfolios that are potential candidates for investment can be generated to further inform the investor. It is unclear what performance data can be generated. Perhaps, as suggested by FIG. 5 of Wallman, the generated performance data is return data generated by a stock over the past 12 months. In any event, there is no discussion of the claim 11 recitation of determining combined rankings for proposed trades of relevant securities based at least in part on risk rankings and on security forecast rankings. As claimed, the security forecast rankings are translated from normalized security forecasts received from at least one advisor.

Thus, the sections (i.e., column 37, line 58-column 38, line 26; column 16, lines 37-55; column 30, lines 32-60; column 40, lines 40-50) cited on page 4 of the Office Action do

not disclose the amended claim 11 recitation of determining combined rankings for proposed trades of relevant securities based at least in part on risk rankings and on security forecast rankings.

THE "GENERATING AN ORDER LIST" RECITATION

With respect to the third recitation, the "generating an order list" recitation, page 4 of the August 12, 2004 Office Action merely states the following as providing support for the position that Wallman anticipates this recitation: "generating an order list based on the combined ranking (figure 13)."

Thus, the Office Action quotes the "generating an order list" recitation and merely refers to FIG. 13 of Wallman. FIG. 13 of Wallman appears to depict certain screens that may be presented to the investor during various steps in the process of creating or modifying a portfolio. Screen A appears to show one form of a general presentation of the risk 55a and expected differential in return 56a of a chosen portfolio 57a of six stocks. Screen B appears to show a detail of Screen A with the stocks specified and their relative contributions to the portfolio and their respective risks 55b and differential returns 56b. Thus, screen B appears to be the more relevant of the two screens and screen B appears limited to a showing of which stocks make up a portfolio, their relative contributions to the portfolio and their respective risks and differential returns.

In contrast, the invention as claimed in amended claim 11 generates an order list, e.g., a buy/sell list, based on the recited combined rankings. For example, with reference to FIGS. 12 and 13, the portfolio recommendation section 252 and the general information section (FIG. 13) of the illustrated graphical user interfaces include order lists, e.g., buy and sell recommendations, that a system according to the invention generates based on the recited combined rankings. Generating such an order list advantageously allows an investor to receive recommendations for a small number of specific trades. The recommendations based on combined rankings take into account advisor forecast(s) associated with a proposed trade and the proposed trade's impact on the overall risk rating of the portfolio.

In sum, the Examiner does not and cannot cite sections of Wallman that teach the "normalizing security forecasts" recitation, the "determining combined rankings" recitation, and the "generating an order list" recitation. If the Examiner repeats this rejection, the Applicant respectfully requests that the Examiner cite the specific section(s) and the

specific language within the cited section(s) that the Examiner considers to teach the missing recitations.

Thus, for the reasons cited above, amended claim 11 is not anticipated by Wallman. In addition, amended claim 11 is not obvious in view of Wallman because, among other

5 reasons, Wallman teaches away from considering individual proposed trades as would be presented in the order list that results from amended claim 11. Wallman states the following in column 38, between lines 1 and 14:

Consequently, investors will be cautioned to focus on portfolio risk/returns, not individual stock risk/return. *Again, then, there is a great advantage to*
10 *investors* as described above *from being able to adjust their whole portfolio characteristics just through moving a pointer* (51a, 52a in Screen A up or down (or the hand of a dial, or the color code on a litmus-type strip, etc.)), *as opposed to having to consider and understand the effects on the portfolio from modifying individual stock positions.* Thus *less than expert investors,*
15 for example, *can have their portfolio adjusted automatically by having the system re-weight or add cash, or leverage,* when the investor adjusts the pointers, dials or colors. [Emphasis added.]

Thus, not only does Wallman not teach the "normalizing security forecasts",
20 "determining combined rankings", and "generating an order list" recitations, but it also teaches away from generating an order list of proposed transactions. Indeed, Wallman specifically teaches away from helping an investor to consider and understand the effects on a portfolio from modifying individual stock positions. See, e.g., the analysis display 256 in FIG. 12. Furthermore, amended claim 11 is not obvious in view of Wallman for the
25 reasons provided in the Declaration filed concurrently with this Amendment and Response. Consequently, amended claim 11 is patentably distinct from the Wallman patent.

Amended Independent Claim 46

As defined by amended claim 46, the invention provides a computer data signal embodied in a carrier wave. The computer data signal is transferred between an investment
30 advice server and a user's client computer. The computer data signal includes: portfolio information associated with a user's investment portfolio; benchmark information associated with the user's investment portfolio; risk ranking information; stock rating information; and instructions for a client's browser. The instruction are for the client's browser to display: a trade station display including a mechanism operative to receive at
35 least one trade request; a holdings display operative to depict a relationship between the portfolio information and the benchmark information; *an analysis display including a current risk ranking and stock rating and a projected risk ranking and stock rating,*

wherein the analysis display allows a client to compare a current portfolio's average to a projected portfolio's average after a proposed trade; and instructions for the client's browser to transmit a trade request to an investment advice server upon submission of a trade request by a user.

5   Contrary to the assertion on pages 2 and 5 of the Office Action that claim 46 is anticipated by Wallman, amended claim 46 contains a recitation that is completely absent from Wallman. With reference to FIG. 12 of the present application, Wallman does not disclose an analysis display 256 including a current risk ranking and stock rating and a projected risk ranking and stock rating, wherein the analysis display allows a client to

10   compare a current portfolio's average to a projected portfolio's average after a proposed trade (the "analysis display" recitation).

Page 6 of the Office Action merely states the following with respect to the "analysis display" recitation:

> an analysis display including a current and a projected risk ranking, and stock
15   > rating (figures 5, 13, items 53a, 55a-55h, 54a, 56a-56h, and column 37, line
> 58-column 38, line 26; risk ranking and differential return ranking; column
> 16, lines 37-55; column 30, lines 32-60; column 40, lines 40-50; stock rating);

Thus, page 6 of the Office Action quotes the "analysis display" recitation, cites 1)

20   figures 5, 13, items 53a, 55a-55h, 54a, 56a-56h, column 37: line 58-column 38: line 26; and 2) column 16: lines 37-55, column 30: lines 32-60, column 40: lines 40-50, and appears to paraphrase these cites as teaching 1) risk ranking and differential return ranking and 2) stock rating, respectively. All the citations listed above other than the items in figures 5 and 13 are quoted in relevant part and discussed on pages 17-19 of this amendment and

25   response. These citations were discussed in the context of the "determining combined rankings" recitation of amended claim 11.

Although FIGS. 5 and 13 do appear to show a current risk metric (see FIG. 13, items 55a-55h) and a current differential return metric (see FIG. 13, items 56a-56h), _FIGS. 5 and 13 in particular, and Wallman in general, do not show an analysis display_

30   _including a projected risk ranking and a projected stock rating wherein the analysis display allows a client to compare a current portfolio's average to a projected portfolio's average after a proposed trade._ With reference to FIG. 12 and page 48, line 1-page 51, line 8 of the present application, one embodiment of an analysis display 256 includes a current risk ranking and a current alpha (stock rating) and a projected risk rating and a

35   projected alpha (stock rating). Thus, using the analysis display 256 one can compare a

current portfolio's current risk ranking and stock rating to a projected portfolio's risk ranking and stock rating that would exist after the execution of a proposed trade. In other words, as stated in the present application on page 50 between lines 11 and 14, by selecting and deselecting alternatives and suggestions and then by refreshing the analysis display

5 256, the client portfolio is subjected to as many "what if scenarios" prior to trade execution as the user deems beneficial.

Thus, for the reasons cited above, amended claim 46 is not anticipated by Wallman. In addition, amended claim 46 is not obvious in view of Wallman because, among other reasons and as noted above, Wallman teaches away from considering individual proposed

10 trades as one can according to the "analysis display" recitation of amended claim 46. Indeed, Wallman specifically teaches away from considering and understanding the effects on a portfolio from modifying individual stock positions. Furthermore, amended claim 46 is not obvious in view of Wallman for the reasons provided in the Declaration filed concurrently with this Amendment and Response. Consequently, amended claim 46 is

15 patentably distinct from the Wallman patent.

Amended Independent Claim 51

As defined by amended claim 51, the invention provides a system for providing investment advice. The system includes: a database identifying a plurality of securities portfolios and maintaining portfolio information associated with the security portfolios; and

20 a server computer operably coupled to the database and accessible via client computers to a plurality of clients.

The server computer includes a trade advisor component operative to receive, from the database, portfolio information for a securities portfolio of a client. _The trade advisor component proposes securities transactions based on a combined ranking of a return_

25 _ranking and a risk ranking for each tradable security available to the client. The return ranking is based on an aggregation of normalized securities rankings from one or more analysts for each tradable security. The risk ranking is based on a normalized marginal contribution to risk of each security to the portfolio, where the normalized marginal contribution to risk is scaled by a factor reflecting a client's risk aversion._

30 Contrary to the assertion on pages 2, 6, and 7 of the Office Action that amended claim 51 is anticipated by Wallman, amended claim 51 contains recitations that are completely absent from Wallman. For example, the Wallman does not teach or suggest the following amended claim 51 recitations:

<u>*1)*</u> The trade advisor component proposes securities transactions based on a combined ranking of a return ranking and a risk ranking for each tradable security available to the client (hereinafter "proposes securities transactions based on a combined ranking" recitation);

<u>*2)*</u> The return ranking is based on an aggregation of normalized securities rankings from one or more analysts for each tradable security (hereinafter the "aggregation of normalized securities rankings from one or more analysts" recitation); and

<u>*3)*</u> The risk ranking is based on a normalized marginal contribution to risk of each security to the portfolio, where the normalized marginal contribution to risk is scaled by a factor reflecting a client's risk aversion (hereinafter the "risk ranking based on normalized marginal contribution to risk" recitation).

THE "PROPOSES SECURITIES TRANSACTIONS BASED ON A COMBINED RANKING" RECITATION

Taking the above-quoted recitations in turn, the "proposes securities transactions based on a combined ranking" recitation is completely absent from Wallman. Similar to the discussion above with respect to the "combined ranking" recitation of amended claim 11 (see page 16), Wallman does not teach a trade advisor that <u>proposes securities transactions based on a combined ranking of a return ranking and a risk ranking for each tradable security available to the client.</u> Page 7 of the Office Action merely states the following with respect to this recitation:

> the trade advisor component proposing securities transactions based on a combined ranking of a return ranking and a risk ranking for each tradable security available to the client (column 34, lines 15-50)

Thus, page 7 of the Office Action merely quotes the "proposes securities transactions based on a combined ranking" recitation and cites column 34, lines 15-50 of Wallman. Column 34, lines 15-50 of Wallman states in relevant part:

> *Screen 5 (34) is the operational screen for the services selected by the investor.* If, for example, the investor wishes to evaluate the portfolio for tax effects, this Screen 5 (34) permits him to do so. The investor would specify in the tax effects communications menu the relevant parameters selecting from those available--such as stocks with losses, stocks with gains, long-term versus short-term gain or loss, combinations of the parameters, or all current tax positions. *The system would then display for the investor the stock positions that satisfy the investor's parameters,* with dollar amounts listed.

Because of the way the system works--allowing for ... frequent adjustments to the portfolio securities themselves, it is possible that an investor would have gains and losses in the same stock ... In that instance, the system would display the stock as having both such gains and losses. *The investor would then be presented with a series of options as to what he would like to do next.* These options are smart options and context sensitive so that, for example, *an investor is able to sell individual securities simply by highlighting those securities in the list and clicking a command something like "sell at next portfolio adjustment." The transaction is then added to the portfolio as an adjustment* and executed at the next transaction window. If the investor wished to sell immediately, the investor would highlight the securities and click "sell immediately"...[Emphasis added.]

Thus, the above-quoted section of Wallman appears to discuss an operational screen for services selected by an investor. The above-quoted section describes, as an example of one use of the operational screen, an evaluation of a portfolio for tax effects. Wallman suggests that one can select parameters and then the system of *Wallman presumably would display stock positions that satisfy investor specified parameters*. Wallman continues to describe that an investor would then be able to select individual securities from the list for sale.

In contrast, *the claimed invention* recites a *trade advisor component that proposes securities transactions based on a combined ranking of a return ranking and a risk ranking for each tradable security* available to the client. With reference to FIG. 5, the determination of the combined ranking is illustrated as step 5. With reference to FIG. 12, the proposed transactions are shown in the portfolio recommendations display 252. With reference to FIG. 13, the proposed transactions are shown in the portfolio recommendations display and in the general information display.

In other words, the claimed invention proposes transactions based on risk information and analyst/advisor forecasts that have been processed in a specific way designed to produce valuable proposed transactions. Whereas *Wallman appears to discuss* the wholly different idea of receiving investor specified selection parameters and *merely presenting stock positions that meet the investor-selected parameters*. As a concrete example of the difference, in the tax evaluation example provided in the above-quoted section of Wallman, no stocks would be displayed that were not part of the portfolio in question. In contrast, with reference to FIG. 13 of the present invention, proposed transactions can include buy recommendations for securities that are not part of the investor's portfolio (see, for example, the AAPL and BOUT buy recommendations in the portfolio recommendations display and/or the general information display of FIG. 13).

26

Thus, Wallman does not teach the "proposes securities transactions based on a combined ranking" recitation of amended claim 51.

THE "AGGREGATION OF NORMALIZED SECURITIES RANKINGS FROM ONE OR MORE ANALYSTS" RECITATION

With respect to the "aggregation of normalized securities rankings from one or more analysts" recitation, page 7 of the Office Action merely states the following as support for the position that Wallman anticipates this recitation:

> the return ranking being based on an aggregation of normalized securities rankings from one or more analysts for each tradable security (column 30, lines 32-60; column 40, lines 40-50; security forecast ranking)

Thus, page 7 of the Office Action quotes the "aggregation of normalized securities rankings from one or more analysts" recitation, cites column 30, lines 32-60; column 40, lines 40-50 of Wallman, and appears to paraphrase the cited sections as teaching security forecast ranking. Column 30, lines 32-60; column 40, lines 40-50 of Wallman were quoted and discussed above (see pages 18 and 19) with respect to the "determining combined rankings" recitation of amended claim 11.

Column 30, lines 32-60 of the Wallman patent states in relevant part:

> Referring to FIG. 4B, alternatively, or additionally, the computer-based system of the present invention also _allows the investor to be presented with suggested portfolios created through other means--such as a recommended portfolio that reflects a specified strategy, such as_ the ten under performing stocks from the Dow Jones Industrial Index, or _from a selected analyst_, ... As shown in FIG. 4B, the investor can select from a category of portfolios 71-76, under each of which the investor can then select a particular type of portfolio within that category. For example, the investor can select an average portfolio for people with the same number of children as the investor by selecting "Similar Demographics" 74 and then "Number of Children" 77.
>
> _As further examples, a noted analyst may state that her ideal portfolio would be the following fifty stocks in the following proportions_, or a magazine may give its picks for the "ideal" portfolio, ... In any of these types of cases, Screen 5 would make available the list of companies and the suggested allocations (or if no allocation is provided by the entity creating the list, then in accordance with appropriate diversification requirements, risk and other preferences of the investor, as provided previously). [Emphasis added.]

The cited section quoted above appears to discuss a system that can present an investor with a recommended portfolio that reflects a specified strategy such as from a

selected analyst. Presenting a portfolio recommended by a selected analyst does not teach the claim 51 recitation that the return ranking is based on an aggregation of normalized securities rankings from one or more analysts for each tradable security because, among other reasons, merely presenting a portfolio does not make use of the analyst's predictions/forecasts regarding individual securities, whether the securities are included in, *or excluded from*, the analyst's recommended portfolio.

Column 40, lines 40-50 of the Wallman patent states:

As noted, *there will also be pre-packaged or suggested portfolios*. The present invention will keep track of those portfolios. For example, the Washingtonian picks can be displayed for an investor who can then be given the option to purchase a basket of securities that are the same as the expert's picks that have been published. The Dow 500 and the Fortune 500 top stocks may also be tracked by the present invention with the opportunity given to invest in the same top stocks as listed in the index or the magazine. Again, *performance data on the stocks and portfolios that are potential candidates for investment can be generated to further inform the investor*. [Emphasis added.]

The cited section quoted above appears to note that there will be suggested portfolios and that performance data on the stocks and portfolios that are potential candidates for investment can be generated to further inform the investor. It is unclear what performance data can be generated. Perhaps, as suggested by FIG. 5 of Wallman, the generated performance data is return data generated by a stock over the past 12 months. In any event, there is no discussion of the claim 51 recitation that the return ranking is based on an aggregation of normalized securities rankings from one or more analysts for each tradable security.

Thus, for the reasons cited above, the sections cited on page 4 of the Office Action (i.e., column 30, lines 32-60; column 40, lines 40-50) do not disclose the amended claim 51 "aggregation of normalized securities rankings from one or more analysts" recitation.

THE "RISK RANKING BASED ON NORMALIZED MARGINAL CONTRIBUTION TO RISK" RECITATION

With respect to the "risk ranking based on normalized marginal contribution to risk" recitation, page 7 of the Office Action merely states the following as support for the position that Wallman anticipates this recitation:

the risk ranking being based on a normalized marginal contribution to risk of each security to the portfolio, the normalized marginal contribution to risk having been scaled by a factor reflecting a client's risk aversion (figure 5; figure 13 and column 32, lines 58-67; risk ranking relative to the benchmark weights S&P 500 or another index)

Thus, page 7 of the Office Action quotes the "risk ranking based on normalized marginal contribution to risk" recitation, cites figure 5; figure 13 and column 32, lines 58-67 of Wallman, and appears to paraphrase the cited section as teaching "risk ranking

5 relative to the benchmark weights S&P 500 or another index." FIGS 5 and 13 of Wallman appear to show risk relative to the S&P 500 for individual stock positions in a portfolio and portfolio risk levels as a function of the S&P 500 or another index. Column 32, lines 58-67 of Wallman states:

When the portfolio is displayed as a list of securities to be included in the
10 *portfolio, the risk for each such security would be shown graphically,* such as by a color or a bar next to the stock. As an example, the bar would be shaded one color (such as yellow) for stocks riskier than the average and another color (such as blue) for those less risky than the average (see FIG. 13 for an example), or the bars would extend to the right of each listed stock for those
15 stocks that are less risky and to the left for those that are more risky. The longer the bar, the further it departs from the average. [Emphasis added.]

The cited section of Wallman appears to suggest that when the portfolio is displayed as a list of securities to be included in the portfolio, the risk for each such security would be
20 shown graphically. FIGS 5 and 13 and column 32, lines 58-67 do not teach the "risk ranking based on normalized marginal contribution to risk" recitation because the cited materials of Wallman do not describe the risk values shown in FIGS. 5 and 13 as being based on normalized marginal contribution to risk. Indeed the terms normalized and marginal do not appear to be used anywhere in Wallman. Basing the risk ranking on
25 normalized marginal contribution to risk advantageously results in more accurate risk rankings.

In sum, the Examiner does not and cannot cite a section of Wallman that teaches the "proposes securities transactions based on a combined ranking" recitation, the "aggregation of normalized securities rankings from one or more analysts" recitation, and the "risk
30 ranking based on normalized marginal contribution to risk" recitation. If the Examiner repeats this rejection, the Applicant respectfully requests that the Examiner cite the specific section(s) and the specific language within the cited section(s) that the Examiner considers to teach the missing recitations.

Thus, for the reasons cited above, amended claim 51 is not anticipated by Wallman.
35 In addition, amended claim 51 is not obvious in view of Wallman because, among other reasons, Wallman teaches away from proposing securities transactions based on a combined

ranking for each tradable security as claimed in amended claim 51. Wallman states the following in column 38, between lines 1 and 14:

> Consequently, investors will be cautioned to focus on portfolio risk/returns, not individual stock risk/return. *Again, then, there is a great advantage to investors* as described above *from being able to adjust their whole portfolio characteristics just through moving a pointer* (51a, 52a in Screen A up or down (or the hand of a dial, or the color code on a litmus-type strip, etc.)), *as opposed to having to consider and understand the effects on the portfolio from modifying individual stock positions.* Thus *less than expert investors, for example, can have their portfolio adjusted automatically by having the system re-weight or add cash, or leverage,* when the investor adjusts the pointers, dials or colors. [Emphasis added.]

Thus, not only does Wallman not teach the recitations noted above, but it also teaches away from proposing securities transactions based on a combined ranking for each tradable security as claimed in amended claim 51. Indeed, Wallman specifically teaches away from helping an investor to consider and understand the effects on a portfolio from modifying individual stock positions. Furthermore, amended claim 11 is not obvious in view of Wallman for the reasons provided in the Declaration filed concurrently with this Amendment and Response. Consequently, amended claim 51 is patentably distinct from the Wallman patent.

Independent Claim 58

As defined by independent claim 58, the claimed invention provides a system for providing trading advice for a portfolio of securities. The system includes: a ranker component operative to receive a request to rank relevant securities; a portfolio component in communication with the ranker component and operative to receive a get benchmark request from the ranker component; and a security analyst component in communication with the ranker component and operative to receive a get security rankings request from the ranker component. *The ranker component determines risk rankings of relevant securities using portfolio minus benchmark weights in determining the combined rankings of relevant securities based at least in part on risk rankings and on security forecast rankings.*

Claim 58 recites "determining the combined rankings of relevant securities based at least in part on risk rankings and on security forecast rankings." This recitation is substantially similar to the "determining combined rankings" recitation of amended claim 11. Thus, claim 58 is patentably distinct from Wallman at least for the reasons cited above

(starting on page 17) with respect to the "determining combined rankings" recitation of amended claim 11.

Amended Independent Claim 66

Claim 66 includes recitations substantially similar to the "normalizing security forecasts" recitation, the "determining combined rankings" recitation, and the "generating an order list" recitation of amended claim 11. Thus, claim 66 is patentably distinct from Wallman at least for the reasons cited above with respect to claim 11.

Amended Dependent Claim 72

Amended claim 72 depends from clam 66 and recites that normalizing security rankings includes collecting security rankings for a security from a plurality of security analysts, aggregating the security rankings for the security onto a uniform ranking scale and determining a consensus forecast from a plurality of security analysts. Contrary to the assertion on pages 2 and 11 of the Office Action, *collecting security rankings for a security from a plurality of security analysts, aggregating the security rankings for the security onto a uniform ranking scale and determining a consensus forecast from a plurality of security analysts as recited in amended claim 72 is completely absent from Wallman*.

Page 11 of the Office Action merely states the following as support for the position that Wallman anticipates claim 72:

> Regarding to claim 72, Wallman discloses wherein obtaining security rankings comprises determining a consensus forecast from a plurality of security analysts (column 16, lines 1-22).

Thus, page 11 of the Office Action quotes a portion of claim 72 and then merely cites column 16, lines 1-22 of Wallman. Column 16, lines 1-22 of Wallman states:

> Therefore, according to yet another aspect of the current invention, the investor could simply click on a button on the graphical investor interface and receive a proposed portfolio consisting of a selected grouping of securities like the ten under performing stocks in the Dow Index. The investor could then keep that portfolio as suggested, or modify that portfolio if desired by eliminating one of the stocks (to create the nine aforementioned) or by adding another to create eleven, or by modifying the relative weightings of the ten etc. The portfolio would then be acquired for the investor just as if the investor selected the securities to be included in that portfolio through other means. In addition, *the portfolio that is pre-packaged as a starting point for the investor could also be a portfolio recommended by another, such as* an investing magazine's picks for the next few years, or *an analyst* or investment bank's selections, or an organization's preferences (such as the AFL-CIO's or the Business RoundTable's preferences or members), or even a famous

person's selections. In each case the investor obtains the benefits of the system providing a portfolio of directly owned securities, as opposed to an interest in a fund or trust.

5   Thus, the above-quoted section of Wallman appears to suggest that a portfolio that is pre-packaged as a starting point for an investor could be a portfolio recommended by another, such as an analyst. The cited section of Wallman is wholly unrelated to the claim 72 recitation of collecting security rankings for a security from a plurality of security analysts, aggregating the security rankings for the security onto a uniform ranking scale and

10   determining a consensus forecast from a plurality of security analysts because, among other reasons, providing a prepackaged portfolio from a single analyst is not equivalent to collecting security rankings for a security from a plurality of security analysts.

As noted in the present application between page 9, line 31 and page 10, line 17, stocks highly recommended by analysts generally outperform the market over the long

15   term. Similarly stocks that are unfavorably recommended by analysts generally under perform the market over the long term. Indeed, research suggests that strategies of purchasing the stocks with the most favorable consensus (combined) recommendations or selling short the stocks with the least favorable recommendations produce an annual abnormal gross return. Thus, the method of amended claim 72 presents valuable advice to

20   an individual investor who is preparing to make a transaction by determining a consensus forecast from a plurality of security analysts.

Dependent claims 15-18, 49, 53, 54, 56, 60, 65, 69, and 71

Dependent claims 15-18 depend from amended claim 11. Thus, claims 15-18 are patentably distinct from Wallman at least for the reasons provided above with respect to

25   amended claim 11. Dependent claim 49 depends from claim 46. Thus, claim 49 is patentably distinct from Wallman at least for the reasons provided above with respect to amended claim 46. Dependent claims 53, 54, and 56 depend from claim 51. Thus, claims 53, 54, and 56 are patentably distinct from Wallman at least for the reasons provided above with respect to claim 51. Dependent claim 60 and 65 depend from claim 58. Thus, claims

30   60 and 65 are patentably distinct from Wallman at least for the reasons provided above with respect to amended claim 58. Dependent claims 69 and 71 depend from claim 66. Thus, claims 69 and 71 are patentably distinct from Wallman at least for the reasons provided above with respect to amended claim 66.

Rejection of claims 57, 59, 61-64, 67, 68, and 70 under 35 USC 103 (a)

Claims 57, 59, 61-64, 67, 68, and 70 stand rejected under 35 USC 103(a) as being unpatentable over Wallman. Reconsideration and withdrawal of this obviousness rejection is deemed in order and requested.

5   Claim 57 recites a system for providing trading advice for a portfolio of securities. The system includes: a ranker component operative to receive a request to rank relevant securities; a portfolio component in communication with the ranker component and operative to receive a get benchmark request and a get tax lots request from the ranker component; and a security analyst component in communication with the ranker component

10   and operative to receive a get security rankings request from the ranker component.

The ranker component is operative: _to provide risk rankings_ of relevant securities _using_ portfolio minus benchmark weights in determining _a marginal contribution to risk associated with a relevant security_; to determine tax rankings based in part on tax lot data; and _to determine combined rankings of relevant securities as a weighted sum of risk_

15   _rankings, security forecast rankings and tax rankings. The ranker component determines a marginal contribution to risk by: adding a specified weighting to the portfolio; determining a revised contribution to factor risk and residual risk; subtracting original values; and dividing by a change in weight._

The system further includes an asset allocator in communication with the ranker

20   component. _The asset allocator_ receives combined rankings for relevant securities from the ranker component and _creates a trade list based at least in part on the combined rankings_.

Contrary to the assertion on pages 11-13 that claim 57 is obvious in view of Wallman, claim 57 includes recitations that are not taught or suggested by Wallman. For example, Wallman does not teach or suggest the following claim 57 recitations:

25   1)   [determining] combined rankings of relevant securities as a weighted sum of risk rankings, security forecast rankings and tax rankings (hereinafter the "determining combined rankings as sum of risk, forecast and tax rankings" recitation);

        2)   [determining] a marginal contribution to risk by: adding a specified

30   weighting to the portfolio; determining a revised contribution to factor risk and residual risk; subtracting original values; and dividing by a change in weight (hereinafter the "determining a marginal contribution to risk" recitation); and

3)   [creating] a trade list based at least in part on the combined rankings

(hereinafter the "creating a trade list" recitation).

THE "DETERMINING COMBINED RANKINGS AS SUM OF RISK, FORECAST AND TAX RANKINGS"

5 RECITATION

Taking the above-quoted recitations in turn, Wallman does not disclose or suggest

the "determining combined rankings as sum of risk, forecast and tax rankings" recitation.

Indeed, the last paragraph of page 12 of the Office Action acknowledges that "Wallman

does not disclose determine [sic] combined rankings of relevant securities as a weighted

10 sum of risk rankings, security forecast rankings and tax rankings."

But, the Office Action continues on page 13 with the following statements:

However, Wallman does disclose determine [sic] the risk rankings, security
forecast rankings (figure 13, items 53a, 55a-55h, 54a, 56a-56h, and column
37, line 58-column 38, line 26, risk ranking and differential return ranking;
column 16, lines 37-55; column 30, liens 32-60; column 40, 40-50; security
15   forecast ranking), and tax rankings (column 34, lines 15-35). Moreover, _it is_
well known in the art to determine a combined ranking as a weighted sum of
the other rankings. For example, determining the overall ranking of a student
by summing all rankings from different courses, determining the overall
20   _ranking of an employee by summing all rankings from different factors, etc._
Therefore, it would have been obvious to one with ordinary skill in the art at
the time the invention was made to modify Wallman's to apply _the_ obvious
method of combining rankings for determining combined rankings of
relevant securities as a weighted sum of risk rankings, security forecast
25   _rankings and tax rankings for the purpose of providing more accuracy and_
efficiency in ranking securities, thus providing the investor the better advise
in making the investment decision to select the securities included in his
portfolio based on the combined rankings, in order to satisfy the investor's
investment goals. [Emphasis added.]

30   Contrary to the above-quoted section from the Office Action, there is no motivation

or suggestion in Wallman to make the indicated modification of the subject matter of

Wallman to achieve the claimed invention. It is the invention as a whole that must be

evaluated; "...the changes must be evaluated in terms of the whole invention, including

whether the prior art provides any teaching or suggestion to one of ordinary skill in the art

35 to make the changes [to the cited document] that would produce the patentee's method and

device." Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 15 USPQ 2d. 1321 (Fed.

Cir. 1990).

An Examiner is not allowed to use hindsight to pick and choose among pieces of

prior art references so as to reconstruct the claimed invention. In re Fritch, 972 F.2d at

1266. As the Federal Circuit has observed on more than one occasion, "[t]o imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher." In re Fine, 837 F.2d 1071, 1075 (Fed. Cir. 1988) (quoting W.L. Gore & Assoc. v. Garlock. Inc., 721 F.2d 1540, 1553 (Fed. Cir. 1983)). See also Pentec, Inc. v. Graphic Controls Corp., 776 F.2d 309, 313, 227 USPQ 2d. 1923, (Fed. Cir. 1985) Additionally, it is improper to focus on obviousness of substitutions, instead of on invention as a whole. Gillette Co. v. S.C. Johnson & Son, Inc. 16 USPQ 2d. 1923 (Fed. Cir. 1990). Indeed, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. In re Fritch, 23 USPQ 2d 1780, 1783-84 (Fed. Cir. 1992).

The above-quoted section of the Office Action appears to assert that the motivation for modifying the subject matter of Wallman to include the subject matter of the "determining combined rankings as sum of risk, forecast and tax rankings" recitation is to provide more accuracy and efficiency in ranking securities. Thus, the Office Action appears to acknowledge that determining combined rankings of relevant securities as a weighted sum of risk rankings, security forecast rankings and tax rankings, as claimed, provides more accuracy and efficiency in ranking securities. The Office Action appears to further acknowledge that providing more accuracy and efficiency in ranking securities provides an investor better advice in making an investment decision, i.e., that advice based on the combined rankings helps an investor select which securities to include in the investor's portfolio in order to satisfy the investor's investment goals.

Applicants agree with this apparent acknowledgement of the value of the invention of claim 57. However, the idea to determine combined rankings as claimed for the purpose of more accuracy and efficiency in ranking securities comes from the present application (see, e.g., page 9 between lines 7 and 32) and not from Wallman. More specifically, the present application states on page 9 between lines 7 and 32: "[In] another embodiment, the invention combines the rankings from multiple sources, such that the combined ranking contains the most usable information... Thus, the system provides the user advice on a large number of stocks, which she can apply in managing her portfolio and in evaluating her list of potential purchases."

35

Indeed, the Office Action does not cite a section in Wallman as providing the required suggestion or motivation to modify the subject matter of Wallman to achieve the invention of claim 57. As noted above, *to imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference of record conveys or*

5 *suggests that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventors taught is used against its teachers.* If the Examiner repeats this obviousness rejection, the Applicants respectfully request that the Examiner cite the specific section of Wallman, and the specific language within that section, that the Examiner considers to provide the required suggestion or motivation.

10 Moreover, Wallman teaches away from determining combined rankings of relevant securities as a weighted sum of risk, security forecast and tax rankings, as claimed, to provide more accuracy and efficiency in ranking securities, which in turn provides an investor better investment advice, i.e., advice that helps an investor select which securities to include in the investor's portfolio.

15 Wallman states the following in column 38, between lines 1 and 14:

Consequently, investors will be cautioned to focus on portfolio risk/returns, not individual stock risk/return. *Again, then, there is a great advantage to investors* as described above *from being able to adjust their whole portfolio characteristics just through moving a pointer* (51a, 52a in Screen A up or
20 down (or the hand of a dial, or the color code on a litmus-type strip, etc.)), *as opposed to having to consider and understand the effects on the portfolio from modifying individual stock positions.* Thus *less than expert investors,* for example, *can have their portfolio adjusted automatically by having the system re-weight or add cash, or leverage,* when the investor adjusts the
25 pointers, dials or colors. [Emphasis added.]

Thus, not only does Wallman not teach the recitation noted above, but it also teaches away from proposing a trade list based at least in part on a combined ranking as claimed in claim 57. Indeed, Wallman specifically teaches away from helping an investor
30 to consider and understand the effects on a portfolio from modifying individual stock positions.

In addition, the Examiner states the following on page 13 of the Office Action:

[I]t is well known in the art to determine a combined ranking as a weighted sum of the other rankings. For example, determining the overall ranking of a
35 student by summing all rankings from different courses, determining the overall ranking of an employee by summing all rankings from different factors, etc

The statement "it is well known in the art to determine a combined ranking as a weighted sum of the other rankings" appears to be derived from the Examiner's personal knowledge and appears to be asserted to support the rejection of claim 57 among other claims. If the Examiner repeats the present rejection, per 37 CFR 1.104(d)(2) and MPEP 2144.03, the Applicants respectfully request that the Examiner provide an affidavit providing support for this statement. 37 CFR. 1.104(d)(2) states the following:

> When a rejection in an application is based on facts within the personal knowledge of an employee of the Office, the data shall be as specific as possible, and the reference must be supported, when called for by the applicant, by the affidavit of such employee, and such affidavit shall be subject to contradiction or explanation by the affidavits of the applicant and other persons.

Indeed, the Office Action provides examples (i.e., (1) determining the overall ranking of a student by summing all rankings from different courses, and (2) determining the overall ranking of an employee by summing all rankings from different factors) presumably to demonstrate that it is well known in the art to determine a combined ranking as a weighted sum of the other rankings However, these examples appear to relate to education and employee management, respectively, not to the art of the present invention. In fact, it is not well known to one of ordinary skill in the art at the time of filing of the present application to determine combined rankings of relevant securities as a weighted sum of risk, security forecast and tax rankings, in the context of claim 57. Thus, Wallman does not disclose or suggest the "determining combined rankings as sum of risk, forecast and tax rankings" recitation.

THE "DETERMINING A MARGINAL CONTRIBUTION TO RISK" RECITATION

With respect to the "determining a marginal contribution to risk" recitation (i.e., determining a marginal contribution to risk by: adding a specified weighting to the portfolio; determining a revised contribution to factor risk and residual risk; subtracting original values; and dividing by a change in weight), Wallman does not teach or suggest this recitation. Page 12 of the Office Action merely states the following in support of its position that Wallman teaches this recitation:

> the ranker component determining a marginal contribution to risk by: adding a specified weighting to the portfolio; determining a revised contribution to factor risk and residual risk; subtracting original values; and dividing by a change in weight (column 24, lines 14-17; column 26 lines 10-35; adjusting

percentage allocation to meet the investor's financial goals, suggesting changes to the portfolio to satisfy the investor's preference).

Thus, page 12 of the Office Action quotes the relevant recitation, cites column 24, lines 14-17 and column 26, lines 10-35 of Wallman and appears to paraphrase the cited sections as teaching "adjusting percentage allocation to meet the investor's financial goals, suggesting changes to the portfolio to satisfy the investor's preference." Column 24, lines 10-17 of Wallman states the following:

> The system....[compares] the historical and expected rates of returns of the investor's portfolio to the rates of return assumed in the asset allocation models using known probabilistic methods including value at risk and sensitivity analysis, and when determining a difference exists, *...[suggests] an adjustment in the percentage allocation* to correct for the difference *so that the desired financial goals can be achieved* within the constraints set by the investor. [Emphasis added.]

Thus, as noted in the office action, the cited section of Wallman appears to teach adjusting percentage allocation to meet the investor's financial goals. Column 26, lines 10-35 of Wallman states the following:

> As an example, an investor might have stated that he wished to invest solely in large capitalization, software, financial services and entertainment companies based in the United States with no negative corporate governance factors. The system then returns a listing of stocks, including obvious ones that are household names and some that are not. The system then specifies percentages of each stock to allocate to the portfolio in order to insure a reasonable level of diversification (and would alert the investor if that could not be done). One example would be dividing the total dollar amount being invested by the number of securities meeting the criteria entered by the investor and allocating an equal dollar amount or a capitalization-weighted dollar amount to each of the securities, and if there were fewer than twenty securities for example, indicating to the investor that reasonable levels of diversification were not necessarily achieved. It should be noted that other levels of diversification could be used as well.
>
> In addition, the system specifies the level of risk for the portfolio and *suggests changes to satisfy the investor's preferences. As an example, if there were insufficient companies in the above list, the system would suggest either relaxing the capitalization standard, or including more industries, such as communications, which could be viewed as similar to the non-manufacturing industries selected by the investor.* [Emphasis added.]

Thus, Wallman appears to discuss a system that suggests changes to investor specified stock selection criteria, e.g., a capitalization standard, in order to satisfy the investor's preferences. Although Wallman appears to discuss adjusting percentage

allocation to meet an investor's financial goals and suggesting changes to investor specified

stock selection criteria, e.g., a capitalization standard, in order to satisfy an investor's

preferences, it is not clear how Wallman achieves these two functions. Wallman does note

in column 23, between lines 38 and 43, that there are many existing asset allocation

5   models, any of which can be employed. Presumably one of these models is employed to

adjust percentage allocation to meet an investor's financial goal as discussed in Wallman.

        In any event, the cited sections of Wallman simply do not disclose or suggest

determining a marginal contribution to risk by: adding a specified weighting to the

portfolio; determining a revised contribution to factor risk and residual risk; subtracting

10   original values; and dividing by a change in weight, as claimed.

THE "CREATING A TRADE LIST" RECITATION

With respect to the "creating a trade list" recitation, Wallman does not disclose or suggest

creating a trade list based on combined rankings of relevant securities, the combined

15   rankings being a weighted sum of risk, security forecast and tax rankings, as claimed. Page

12 of the Office Action states the following in support of the obviousness rejection of claim

57 in view of Wallman:

> an asset allocator in communication with the ranker component, the asset
> allocator operative to receive combined rankings for relevant securities from
> the ranker component and to create a trade list based at least in part on the
> combined rankings (column 23, lines 21-60; the asset allocation model 1).

20

        Thus, page 12 of the Office Action quotes the relevant recitation and merely cites

column 23, lines 21-60 and the asset allocation model 1 from FIG. 1 of Wallman. Column

25   23, lines 21-60 of Wallman states in relevant part:

> In the asset allocation model 1; an investor is first queried for answers to a
> series of questions that determine investor data ... the investor's risk tolerance
> and financial goals and objectives, ... the investor's preferred risk-return
> characteristics, the investor's preferences for various types of securities and
> preferred portfolio mix, ... _There are a variety of different outputs for the_
> _asset allocation model. One formulation is an amount that the investor should_
> _invest in long-term investments, medium-term investments, and short-term_
> _investments. The asset allocation model determines a percentage allocation in_
> _each of the general investment types according to a set of known tables._
> There are many existing asset allocation models, any of which can be
> employed   in   the   present   invention,   ...

30

35

An exemplary questionnaire used for input to any of the above asset allocation

models is depicted in FIG. 2. FIG. 3 depicts an exemplary output of such an

asset   allocation   model.

The investor can enter the system at various stages, however, and need not answer all the questions. For example, the investor could start at the beginning, presenting all the basic information about age, income, liabilities, financial goals, etc. In that instance, the computer-based system of the present invention utilizes any of the known and publicly available asset allocation models, or a combination of such models, to provide information to the investor as to the percentage of investable assets that should be allocated, generally, to short-term liquid investments .., medium term investments ..., and long-term investments ....

Thus, With reference to FIG. 1, the above-quoted section of Wallman appears to indicate: that there are a variety of different outputs for the asset allocation model; that one formulation is an amount that the investor should invest in long-term investments, medium-term investments, and short-term investments; and that the asset allocation model determines a percentage allocation in each of the general investment types according to a set of known tables.

In contrast, the invention as claimed in amended claim 57 creates a trade list, e.g., a buy/sell list, based on the recited combined rankings. For example, with reference to FIGS. 12 and 13, the portfolio recommendation section 252 and the general information section (FIG. 13) of the illustrated graphical user interfaces include trade lists, e.g., buy and sell recommendations, that a system according to the invention generates based on the recited combined rankings. Creating a trade list advantageously allows an investor to receive recommendations for a small number of specific trades. The recommendations based on combined rankings being a weighted sum of risk, security forecast and tax rankings.

In addition, as noted above, claim 57 is not obvious in view of Wallman because, among other reasons, Wallman teaches away from considering individual proposed trades as would be presented in the trade list that results from claim 57. Wallman states the following in column 38, between lines 1 and 14:

Consequently, investors will be cautioned to focus on portfolio risk/returns, not individual stock risk/return. *Again, then, there is a great advantage to investors* as described above *from being able to adjust their whole portfolio characteristics just through moving a pointer* (51a, 52a in Screen A up or down (or the hand of a dial, or the color code on a litmus-type strip, etc.)), *as opposed to having to consider and understand the effects on the portfolio from modifying individual stock positions.* Thus *less than expert investors,* for example, *can have their portfolio adjusted automatically by having the system re-weight or add cash, or leverage,* when the investor adjusts the pointers, dials or colors. [Emphasis added.]

40

Thus, not only does Wallman not teach the above-noted recitations, but it also teaches away from creating a trade list of proposed transactions. Indeed, Wallman specifically teaches away from helping an investor to consider and understand the effects on a portfolio from modifying individual stock positions. Consequently, claim 57 is patentably distinct from the Wallman patent.

In sum, the Examiner does not and cannot cite sections of Wallman that teach or suggest the "determining combined rankings as sum of risk, forecast and tax rankings" recitation the "determining a marginal contribution to risk" recitation; and the "creating a trade list" recitation. If the Examiner repeats this rejection, the Applicant respectfully requests that the Examiner cite the specific section(s) and the specific language within the cited section(s) that the Examiner considers to teach or suggest the missing recitations.

Thus, for the reasons cited above, claim 57 is not taught or suggested by Wallman.

Dependent claims 59, 62, 64, and 67

Dependent claims (1) 59, 62, 64, and (2) 67 depend from independent claims 58 and 66, respectively. In addition, these claims include recitations that are substantially similar to some of the recitations just discussed with respect to independent claim 57. Thus, claims (1) 59, 61, 62, 64, and (2) 67 are patentably distinct from Wallman for the reasons provided above with respect to independent claims 57, 58 and/or 66.

Dependent claims 61 and 68

Dependent claims 61 and 68 depend from independent claims 58 and 66, respectively. Claims 61 and 68 include the following substantially similar recitation: wherein *the ranker component is operative to determine a risk ranking for a relevant security by determining a marginal contribution to risk associated with the relevant security* and wherein the ranker component is operative to determine the combined rankings as a weighted sum of the risk rankings and the security forecast rankings.

The Office Action merely states the following, between the bottom of page 13 and the top of page 14, in support of the position that claims 61 and 68 are obvious in view of Wallman:

> *Wallman does not disclose wherein the ranker component is operative to determine a risk ranking for a relevant security by determining a marginal contribution to risk associated with the relevant security (figure 5; figure 13 and column 32, lines 58-67; determining risk ranking relative to benchmark weights S&P 500 or another index);* **Wallman does not disclose** wherein the

ranker component is operative to determine the combined rankings as a weighted sum of the risk rankings and the security forecast rankings (see claim 57 for more details). [Emphasis added.]

Thus, the cited section of the Office Action notes that Wallman does not disclose the relevant recitations, cites figure 5; figure 13 and column 32, lines 58-67, appears to paraphrase the cited figures and section as teaching determining risk ranking relative to benchmark weights S&P 500 or another index, and states "see claim 57 for more details." FIGS 5 and 13 appear to show risk relative to the S&P 500 for individual stock positions in a portfolio and portfolio risk levels as a function of the S&P 500 or another index. Column 32, lines 58-67 of Wallman states:

> *When the portfolio is displayed as a list of securities to be included in the portfolio, the risk for each such security would be shown graphically*, such as by a color or a bar next to the stock. As an example, the bar would be shaded one color (such as yellow) for stocks riskier than the average and another color (such as blue) for those less risky than the average (see FIG. 13 for an example), or the bars would extend to the right of each listed stock for those stocks that are less risky and to the left for those that are more risky. The longer the bar, the further it departs from the average. [Emphasis added.]

The cited section of Wallman appears to suggest that when the portfolio is displayed as a list of securities to be included in the portfolio, the risk for each such security would be shown graphically. FIGS 5 and 13 and column 32, lines 58-67 do not teach (as acknowledged by the office action) or suggest determining "a risk ranking for a relevant security by determining a marginal contribution to risk associated with the relevant security" as recited because the cited materials of Wallman do not describe the risk values shown in FIGS. 5 and 13 as being based on a marginal contribution to risk associated with the relevant security. Indeed the term marginal does not appear to be used anywhere in Wallman. Basing a risk ranking on a marginal contribution to risk associated with a relevant security advantageously results in more accurate risk rankings. Thus, for the reasons cited above, claims 61 and 68 are patentably distinct from Wallman.

Dependent claims 63 and 70

Dependent claim 63 depends from claim 62. Claim 62 depends from claim 61 which in turn depends form claim 58. Claims 58 and 61 have been discussed above. Claim 62 recites that "the ranker component is operative to determine a risk ranking for a relevant security by adding a specified weighting to the portfolio, determining a revised contribution

to factor risk and residual risk, subtracting original values, and dividing by a change in weight." Claim 63 recites that "the ranker component is operative to determine a risk ranking for a relevant security by: for the relevant security adding about a 0.1% weighting to the portfolio."

5   Contrary to the assertion on pages 11 and 14 of the Office Action, Applicants respectfully assert that the invention of claim 63 is not obvious in view of Wallman because of the reasons provided above with respect to claims 58 and 62 and also because of the specific subject matter recited in claim 63. Page 14 of the Office Action acknowledges that "Wallman does not disclose wherein the ranker component is operative to determine a risk

10   ranking for a relevant security by adding about a 0.1% weighting to the portfolio." But, page 14 of the Office Action continues to state:

> However, Wallman does disclose adding a specified weighting to the portfolio (column 24, lines 14-17; adjusting percentage allocation to meet the investor's financial goals). Moreover, adding 0.1% weighting to the portfolio is a desired
> 15   choice, in Wallman the investor allows to adjust the percentage allocation in his portfolio, thus the investor could add a .specific weighting such as 0.1% weighting to meet his financial goal. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Wallman's to include the feature above for the purpose of allowing the
> 20   investor to modify his portfolio in order to meet his financial goals.

With respect to the statement in the quote directly above that Wallman does disclose adding a specified weighting to the portfolio, the Applicants have explained above (see page 35) with respect to the "determining a marginal contribution to risk" recitation of claim 57 that although Wallman appears to discuss adjusting percentage allocation to meet

25   an investor's financial goals, it is not clear how Wallman achieves this result. Wallman does note in column 23, between lines 38 and 43, that there are many existing asset allocation models, any of which can be employed. Presumably one of these models is employed to adjust percentage allocation to meet an investor's financial goal as discussed in Wallman.

30   In any event, the cited section of Wallman simply does not disclose or suggest a ranker component operative to determine a risk ranking for a relevant security by: for the relevant security adding about a 0.1% weighting to the portfolio; determining a revised contribution to factor risk and residual risk; subtracting original values; and dividing by a change in weight, as claimed. In other words, Wallman appears merely to discuss adjusting

35   allocation. In contrast and with reference to page 41 of the specification of the present application, the claimed invention is determining a portfolio specific marginal risk by

adding a discrete-sized (versus infinitesimal) change: for the relevant security about 0.1% weighting, and determining the marginal contribution to risk as a result of the discrete-sized addition of that particular security. In other words, because trades actually occur in discrete sizes, a portfolio manager or investor, using the methods and systems of the claimed

5   invention, receives more accurate feedback, e.g., on the impact on a portfolio of a proposed trade. Thus, the Applicants respectfully assert that the rejection of claims 63 and 70 as obvious in view of Wallman is traversed.

Declaration of Paul Samuelson

Moreover, as noted in the Paul Samuelson Declaration submitted concurrently with

10 this Amendment and Response, the long-felt need for tools that specifically address a portfolio manager's activities and the commercial success enjoyed by Upstream's Investment Management System (which incorporates the claimed subject matter) further support the conclusion of nonobviousness of the claimed subject matter. Thus, for the reasons cited above, claims 57, 59, 61-64, 67, 68, and 70 are patentably distinct from

15 Wallman.

Claims 74-77

As defined by claim 74 and as taught in FIGS. 3A, 3B, 9, 14 and 16 and in the associated text (e.g., between page 47, line 3 and page 51, line 22), of the present

20 application, the invention provides a method for assisting a user to manage a plurality of portfolios. The method includes: displaying a rebalance accounts display for providing information about a plurality of accounts; allowing a user to select one or more accounts for rebalancing; allowing a user to select a trading template to apply to the selected accounts; and applying the trading template to the selected accounts. At least one of the trades in the

25 trade template is generated by a method including: using a ranker component to pass a get benchmark request to a portfolio component; using a ranker component to pass a get security rankings request to a security analyst component; determining risk rankings for relevant securities using portfolio minus benchmark weights; _determining combined rankings for proposed trades of relevant securities based at least in part on risk rankings_

30 _and on security forecast rankings_; and generating an order list based on the combined rankings. Claim 74 includes a recitation substantially similar to the "determining combined rankings recitation of amended claim 11. Thus claim 74 is patentably distinct from Wallman at least for the reasons cited above with respect to the "determining combined

rankings" recitation of amended claim 11. Claims 75-77 depend, directly or indirectly, from claim 74.

Applicants submit that the pending claims are in allowable condition, and a notice to that effect is respectfully requested. The Examiner is invited to call the Applicants'

5   Attorney at the number provided below with any questions.

The Applicant does not believe that any fees are due. However, the Commissioner is hereby authorized to charge any fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311, Reference No. 24309-501.

10

Respectfully submitted,
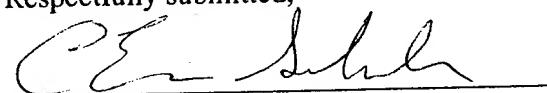
C. Eric Schulman , Reg. No.43,350
Attorney for Applicants

15   Date: January 31, 2005   Telephone: (617) 542-6000

Correspondence should be addressed to customer number **30623**.

20   TRA 1954424

Appendix IV – Copy of Figures 1-20

Fig. 1

Fig. 2A

Fig. 2B

Fig. 3A

Fig. 3B

PRESENTATION LAYER

ACTIVE SERVER PAGES
WITH XSL/XML
TRANSFORMATIONS 229

179

BUSINESS LAYER

180 234

USER SESSION
MANAGER

PORTFOLIO
TRACKER

TRADE
STATION

SHARED RESOURCE
MANAGER

230 232 177 181

BUSINESS LOGIC LAYER 183

TRADE
ADVISOR

SECURITIES RANKING
AGGREGATOR

BROKER CONNECTION
AGGREGATOR

236 238 240

DATA ACCESS LAYER

REAL TIME
DATA PROVIDER

242

DATA ACCESS LIBRARY 244

185

SQL SERVER

246

Fig. 4

Fig. 5

Fig. 6

VALIDATED DATA IS FED TO THE SYSTEM

FIELD VALUES ARE VALIDATED AND MAPPED TO SYSTEM DATA TYPES

THIS INFORMATION COULD EITHER BE COMPLETED PORTFOLIO POSITIONS OR ONLY CHANGES TO EXISTING POSITIONS

PRODUCTION DATABASE

270

STAGING DATABASE

268

FILE PARSER AND DATA ASSEMBLY

266

REJECTED RECORDS

274

EXCEPTION HANDLING

276

PLAN SPONSOR

264

CHECKSUM

272

FILE FORMATS IS VALIDATED. A CHECSUM IS COMPUTED.

POSITION:
CSCO
1500 SHARES
72

LOT 1
1500 SHARES
PURCHASED 3/1/00
@71 3/16

LOT 1.1
200 SHARES
SOLD 4/3/00
@70 3/8

LOT 1.2
100 SHARES
SOLD 4/5/00
@71

POSITION:
X
1000 SHARES
33 1/16

LOT 1
100 SHARES
PURCHASED 2/10/00
@23 1/2

LOT 2
100 SHARES
PURCHASED 2/11/00
@23

LOT 3
500 SHARES
PURCHASED 11/1/99
@20

LOT 4
300 SHARES
PURCHASED 7/3/95
@45

POSITION:
HWP
700 SHARES
27 1/2

LOT 1
700 SHARES
PURCHASED 2/3/00
@25

POSITION:
IBM
1000 SHARES
53 1/4

LOT 1
700 SHARES
PURCHASED 1/5/98
@45 1/2

LOT 2
500 SHARES
PURCHASED 11/14/90
@100 1/2

LOT 2.1
300 SHARES
SOLD 4/1/00
@52 1/2

Fig. 7

Fig. 8A

USERS

	ID
	FirstName
	LastName
	AddressLine1
	City
	StateOrProvince
	PostalCode
	Country
	HomePhone
	WorkPhone
	FaxNumber
	EmailAddress

PORTFOLIOS

	ID
	LastUpdate
	Performance
	RiskRating
	Alpha
	DefaultAnalyst
	CurrentState
	BenchmarkID
	PreferredAnalyst
	PortfolioType

Securities

	ID
	Symbol
	Suffix
	Company
	CUSIP
	OpenPrice
	ClosePrice
	Type
	TaxExempt
	Beta
	ResidualRisk
	LastSale

BuySellRestrictions

	RestrictionSide
	SecurityID
	PortfolioID
	CustomerID

Fig. 8B

Securities

🔑	ID
	Symbol
	Suffix
	Company
	CUSIP
	OpenPrice
	ClosePrice
	Type
	TaxExempt
	Beta
	ResidualRisk
	LastSale

AnalystRankings

SecurityID
AnalystID
ForecastRanking
PreviousRanking
ID

Analysts

🔑	ID
	FirstName
	LastName
	AddressLine1
	City
	StateOrProvince
	PostalCode
	Country
	HomePhone
	WorkPhone
	FaxNumber
	EmailAddress

Fig. 8C

Securities

🔑	ID	◁
	Symbol	
	Suffix	
	Company	
	CUSIP	
	OpenPrice	
	ClosePrice	
	Type	
	TaxExempt	
	Beta	
	ResidualRisk	
	LastSale	▷

price_history

	history_date	◁
	history_price	
	securityID	▷

SecurityCategories

🔑	Name	◁
	Description	
	nLevel	
	ParentID	
	SchemeID	
	ID	▷
	ParentIdentifier	△
	ResidualRisk	
	Identifier	▽

CategorizedSecurities

	SecurityID	◁
	SecurityCategoryID	
🔑	ID	▷

Benchmarks

	BenchmarkName	◁
	Description	
🔑	ID	
	CreationDate	
	Owner	
	RiskReturnRating	▷

BenchmarkWeights

	BenchmarkID	◁
	CategoryID	
	Weight	▷

CategorySchemes

	Column Name	◁
🔑	ID	▷
	Name	△
	Description	
		▽

Fig. 8D

SecurityCovariances

Name
Description
nLevel
ParentID
SchemeID
ID
ParentIdentifier
ResidualRisk

CategoryCovariances

CovarianceValue
Category1
Category2

Fig. 8E

Benchmarks

	BenchmarkName
	Description
ID	
	CreationDate
	Owner
	RiskReturnRating

Securities

ID	
	Symbol
	Suffix
	Company
	CUSIP
	OpenPrice
	ClosePrice
	Type
	TaxExempt
	Beta
	ResidualRisk
	LastSale

Analysts

ID	
	FirstName
	LastName
	AddressLine1
	City
	StateOrProvince
	PostalCode
	Country
	HomePhone
	WorkPhone
	FaxNumber
	EmailAddress

Lots

ID	
	SecurityID
	Shrs
	PurchasePrice
	SalePrice
	PortfolioID
	DatePurchased
	DateSold
	BrokerIDPurch
	BrokerAccountPurch
	BrokerIDCurrent
	BrokerAccountCurrent

Portfolios

ID	
	LastUpdate
	Performance
	RiskRating
	Alpha
	DefaultAnalyst
	CurrentState
	BenchmarkID
	PreferredAnalyst
	PortfolioType

Brokers

ID	
	FirstName
	LastName
	AddressLine1
	City
	StateOrProvince
	PostalCode
	Country
	HomePhone
	WorkPhone
	FaxNumber
	EmailAddress

PortfolioUserXref

UserID
PortfolioID
Type
ID

Users

ID	
	FirstName
	LastName
	AddressLine1
	City
	StateOrProvince
	PostalCode
	Country
	HomePhone
	WorkPhone
	FaxNumber
	EmailAddress

Alerts

PortfolioID
RIAID
CustodianID
CustomerID
SecurityID
Value
Rating
AnalystID
Symbol
ID

Fig. 8F

Securities

ID	
Symbol	
Suffix	
Company	
CUSIP	
OpenPrice	
ClosePrice	
Type	
TaxExempt	
Beta	
ResidualRisk	
LastSale	

Portfolios

ID
LastUpdate
Performance
RiskRating
Alpha
DefaultAnalyst
CurrentState
BenchmarkID
PreferredAnalyst
PortfolioType

Users

ID
FirstName
LastName
AddressLine1
City
StateOrProvince
PostalCode
Country
HomePhone
WorkPhone
FaxNumber
EmailAddress

BuySellRestrictions

RestrictionSide
SecurityID
PortfolioID
CustomerID

Fig. 8G

SuggestedTrades

	SecurityID
	PortfolioID
	LotID
	tradeSize
	tradePrize
	trade_accepted
🔑	ID
	side
	type
	LimitPrice

TradeTemplates

		◁
	SecurityID	
	CustomerID	
	LotID	
	trade_size	
	trade_price	
	trade_accepted	▷

orders

		◁
🔑	SecurityID	
	CustomerID	
	lot_id	
	trade_size	
	trade_price	
	trade_executed	▷

Lots

🔑	ID
	SecurityID
	Shrs
	PurchasePrice
	SalePrice
	PortfolioID
	DatePurchased
	DateSold
	BrokerIDPurch
	BrokerAccountPurch
	BrokerIDCurrent
	BrokerAccountCurrent

Fig. 8H

Fig. 9

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Quick Account Find: [ ] GO   LOGOUT

Account List

View: Custom... Account value less than $600000 [Change,Save]

Create New Account, Print Account View, Rebalance Accounts

Account Search GO   Performance Since: Current Month ▼

Account Name (Click a name below to view account detail)	Account Value	Cash Percentage	Performance (Current Month)	Benchmark	Risk Rating	Alpha
Christene Hanley - IRA	$243,011	13.8%	+10.7%	S&P 500	2.1	5.7
Nancy Matheson - College Fund	$41,099	4.2%	+9.1%	Wilshire 5000	1.1	4.3
Darrel Roberts - General	$443,930	10.1%	-4.0%	Custom Aggressive	5.9	6.2
Arnold Tobias - Retirement	$541,763	20.0%	+2.4%	Russell 2000	1.4	4.2
Coralie Witter - Retirement	$444,321	11.3%	+12.0%	Russell 2000	2.7	3.5
Mary Robertson - General	$223,230	1.8%	-5.2%	Custom Aggressive	1.9	1.2
Todd Spring - IRA	$113,031	11.8%	+4.7%	S&P 500	4.1	4.5
Jonathan Smith - General	$400,201	5.8%	-4.4%	Wilshire 5000	2.2	2.3
Joan Natalie - College Fund	$81,900	2.2%	+5.1%	Custom Conservative	2.1	4.1
Leslie Racowsky - Retirement	$111,200	3.2%	+7.7%	Wilshire 5000	2.5	3.6

Stock Alerts

Ticker	Stock Rating	Number of Accounts	Holding Value	Actions
AOL	Accumulate	26	$50,192	View Accounts	Sell
EBAY	Strong Buy	-	-	-
LCOS	Buy	-	-	-
MSFT	Hold	15	$10,299	View Accounts	Sell
NXTL	Accumulate	10	$34,837	View Accounts	Sell
YHOO	Strong Buy	-	-	-

Risk Alerts

Account Name	Risk Rating
Darrel Roberts - General	5.9
Jerry Glover - IRA	5.5
Jordan Malick - General	5.2
Tim Brennan - General	5.0
James Slusser - College Fund	5.0
Bob Young - Retirement	4.5
Joan Young - Retirement	4.5

Fig. 10

GoalSeeker™
powered by
Upstream Technologies

Quick Account Find: [   ] ⊙⊙

LOGOUT

My Accounts | Quotes & Reasearch | My Profile | Help

Account Search

Account Name Contains...
[   ] ⊙⊙

Account Number Equals...
[   ] ⊙⊙

Account Value Is...
○ less than   [   ]
○ greater than   [   ]
○ between [   ] and $ [   ]

Cash Percentage Is ...
○ less than   [   ] %
○ greater than   [   ] %
○ between [   ] % and [   ] %

Performance Since [Current Month ▼] **Is ...**
○ less than   [   ] %
○ greater than   [   ] %
○ between [   ] % and [   ] %

Benchmark Equals ...
☐ S&P 500   ☐ Custom Aggressive
☐ Russell 2000   ☐ Custom Conservative
☐ Wilshire 5000   ☐ Custom Retirement

Risk Is ...
○ less than   [   ]
○ greater than   [   ]
○ between [   ] and [   ]

Stock Rating Is ...
○ less than   [   ]
○ greater than   [   ]
○ between [   ] and [   ]

Stock Holdings Value of Ticke[   ] Is ...
○ less than   [   ]
○ greater than   [   ]
○ between [   ] and $ [   ]

[Submit] [Reset]

[Submit] [Reset]

◁ ▷

Fig. 11

Fig. 12

GoalSeeker™ *powered by Upstream Technologies*

Quick Account Find: [　] GO　　LOGOUT

| My Accounts | Quotes & Reasearch | My Profile | Help |

General Information

Darrel Roberts
100 Tremont St.
Boston, MA 02116
(W) 617-715-7115
(H) 617-989-6732
droberts.mail.com

Edit: [▽]

Account:	General [▽]
Benchmark:	Custom Aggressive
Value:	$443,930
Risk:	5.9
Value at Risk:	$89,837
Stock Rating:	6.2

Portfolio Recommendations ○ Advisor Logo

Sell	Top Picks
DELL	AAPL - GTW - IBM - HWP - MICAQ - More...
KO	FIZ - ODWA - SLHN - More...
Buy	**Top Picks**
BOUT	LCOS - YHOO - ATHM - ONVI - TRRA - More...

General Information
View: ⊙ Table ○ Graph

Sector Add Holding	Shares	Price	Value	% of Port	Model %	Diff.	Sell
Consumer Goods			$181,137	40.8%	38.0%	+2.8%	
KO [Edit,Delete]	2000	53 3/8	$106,750	24.0%	18.0%	+6.0%	☑
PEP [Edit,Delete]	1828	40 11/16	$74,387	16.8%	20.0%	-3.2%	
Technology			$217,956	49.1%	57.0%	-7.9%	
DELL [Edit,Delete]	1000	43 1/4	$43,250	9.7%	12.0%	-2.3%	☑
INTC [Edit,Delete]	700	126 1/2	$88,550	19.9%	20.0%	-0.1%	
CSCO [Edit,Delete]	1500	57 7/16	$86,156	19.4%	25.0%	-5.6%	
Cash			$44,837	10.1%	5.0%	5.1%	

Raise Cash: $ [　]　Submit

Buy Recommendatrions

Sell					
☐	☐ FIZ	☑ ODWA	☐ SLHM	More...	
☐	☐ TRY	☐ WH	☐ HANS	☐ LBIX	More...
☑	☑ AAPL	☐ GTW	☐ IBM	☐ HWP	☐ MICAQ More...
☐	☐ AMD	☐ CVCI	☐ CRUS	☐ EXAR	More...
☐	☐ COMS	☐ WEBB	☐ SNIC	☐ NOVL	☐ MADGF More...

Analysis
View: ⊙ Table ○ Graph

Refresh	Risk Rating	Value at Risk	Alpha
Current	5.9	$89,837	6.2
Projected	1.2	$17,382	7.1

TradeStation
Broker: LVL

Action	Ticker	Shares	Type	Market Price	Limit Price	Value
Sell [▽]	Sell	1000	⊙ Market ○ Limit	43 1/4	[　]	+$43,250
Buy [▽]	AAPL	500	○ Market ⊙ Limit	87 3/8	[85]	-$42,500
Sell [▽]	KO	2000	⊙ Market ○ Limit	53 1/2	[　]	+$106,750

Execute

Fig. 13

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Quick Account Find: [ ] (GO)   LOGOUT

Trade Execution Results
Darrel Roberts - General

Refresh | Return to Account

Status	Change	Cancel	Action	Ticker	Shares	Type	Price	Value
Executed	-	-	Sell	DELL	1000	Market	-	+$43,250
Transmitted	Change	Cancel	Buy	AAPL	500	Limit	85	-$42,500
Cancelled	-	-	Sell	KO	2000	Market	-	+$106,750
Pending	Change	Cancel	Buy	ODWA	17667	Market	-	-$106,002

Refresh | Return to Account

Save Trade Template
To save this trading template for rebalancing other accounts, specify a name for this template below and click the "save" button:

[ ] Save

Fig. 14

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Trade Templates | Class Definations | Account Views

Trade Templates

Name	Date:	Click "Go" to Start the Rebalancing Wizard for all Accounts with Benchmark Equal to...
Align Aggressive [Edit,Delete]	05/31/00	Custom Aggressive ▶ GO
Align Retirement [Edit,Delete]	05/31/00	Custom Aggressive ▶ GO
Rebalance General 5/30 [Edit,Delete]	05/30/00	Custom Aggressive ▶ GO
Align Wilshire [Edit,Delete]	05/24/00	Custom Aggressive ▶ GO
Align Custom B [Edit,Delete]	05/16/00	Custom Aggressive ▶ GO
Align Custom A [Edit,Delete]	05/16/00	Custom Aggressive ▶ GO

Creat New Template

Fig. 15

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Rebalance Accounts

1) Choose a trading template: [Align Aggressive ▼]
2) Select accounts below for rebalancing
2) Click the "Execute" button

Execute | Cancel

◀ ▶

| Select	Account Name	Account Value	Benchmark	Current		Projected	
				Risk Rating	Stock Rating	Risk Rating	Stock Rating
☑	Christene Hanley - IRA	$243,011	S&P 500	2.1	5.7	2.3	5.9
☑	Nancy Matheson - College Fund	$41,099	Wilshire 5000	1.1	4.3	0.9	3.5
☑	Darrel Roberts - General	$443,930	Custom Aggressive	5.9	6.2	2.2	4.3
☑	Arnold Tobias - Retirement	$541,763	Russell 2000	1.4	4.2	1.8	4.3
☑	Coralie Witter - Retirement	$444,321	Russell 2000	2.7	3.5	1.9	3.4
☑	Mary Robertson - General	$223,230	Custom Aggressive	1.9	1.2	2.0	4.7
☑	Todd Springs - IRA	$113,031	S&P 500	4.1	4.5	3.1	4.5
☑	Jonathan Smith - General	$400,201	Wilshire 5000	2.2	2.3	2.2	5.3
☑	Joan Natalie - College Fund	$81,900	Custom Conservative	2.1	4.1	1.1	5.2
☑	Leslie Racowsky - Retirement	$111,200	Wilshire 5000	2.5	3.6	2.2	3.6

Execute | Cancel

◀ ▶

Fig. 16
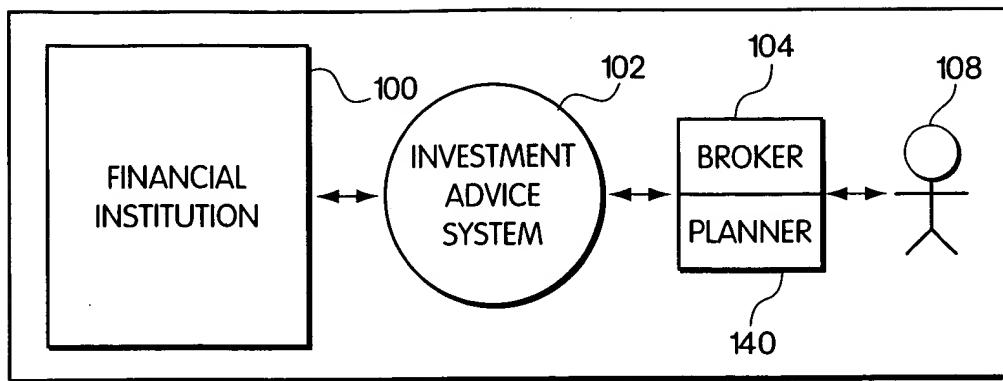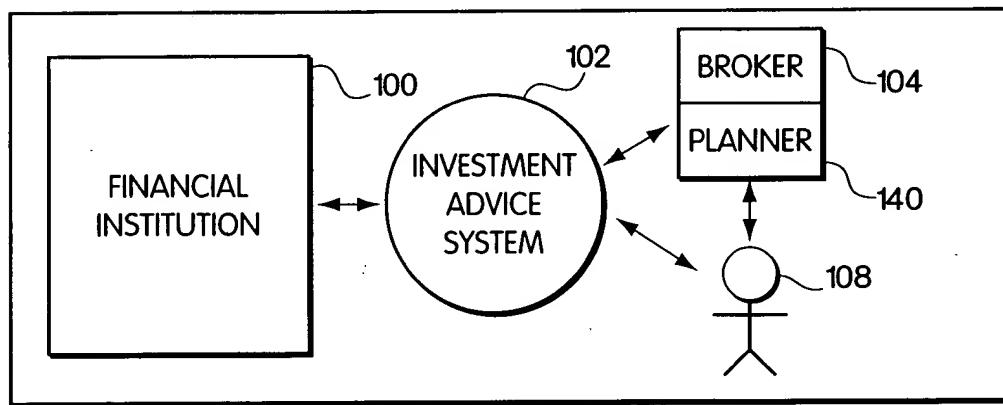
Fig. 17A

Fig. 17B
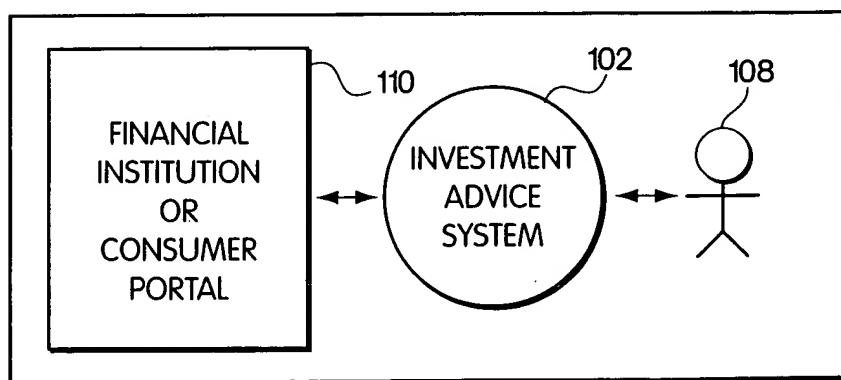
Fig. 17C

Fig. 18

Fig. 19

Fig. 20